

4.2-36, line 28 "The effects of the No Action Alternative (ELT) on DOC concentrations in surface waters upstream of the Delta, in the Delta, and in the SWP/CVP Export Service Areas relative to Existing Conditions would be similar, or of lower magnitude, than the effects described for the No Action Alternative (LLT)." This conclusion statement is in direct contradiction to the impact discussion preceding it. "At the Banks pumping plant, the frequency with which DOC concentration would exceed 3 mg/L 36 would increase from 64% under Existing Conditions to 69% under the No Action Alternative (ELT) for the 16-year period (and increase from 57% to 68% during the drought year period)..." (4.2-35 line 36) This change is over a 10% increase in the frequency of exceedance of an important drinking water quality requirement for the water supply for over 22 million Californian's. This is obviously a significant impact and this glossing over impact calls is a consistent error and deficiency in this EIR/S. A 10% change in conditions, flows or water quality degradation (regardless of water quality exceedance) is often a threshold utilized for water resource project impact criteria for California environmental EIRs and EISs, e.g. Lower Yuba River Accord, Lower American River Accord, Oroville Facilities Relicensing, which these same lead agencies (DWR and Reclamation) have created. This impact is significant and DWR and Reclamation must adopt the same significance criteria for impacts analysis as they have used for other similar projects and/or provide rationale for why they have departed from their previous standards, practices and conventions - see related comments. Any degradation of water quality standards related to a beneficial use is a significant impact.

Impact WQ-32 - "Mile after mile, and stop after stop, the team found the bright green particles drifting beneath the boat's hull. It was microcrystal, a type of blue-green algae that in high concentrations can produce toxins deadly to fish and people." "In what researchers suspect is another troubling side effect of the state's epic drought, the Delta is exploding with algae particles that in intensified concentrations could pose a substantial threat to the central hub for California's vast water delivery network." "The algae bloom is not limited to the central Delta. Peter Moyle, a fisheries biologist with UC Davis, said his team also found microcystis in the water during a separate research trip several river miles away in the north Delta." "...scientists say this particular microcystis bloom is likely caused through a combination of factors, all related to the unusually warm and languid water flows that have accompanied California's drought." "In non-drought years, large algae blooms typically don't have time to form in the Delta, because the particles are flushed out to sea and diluted. This summer, there's far less water flowing into the Delta from upstream reservoirs, creating warm, slow-moving currents that blue-green algae prefer. The low flows also mean nutrients from sewage, fertilizer and other pollutants released from cities, farms and industrial sites upstream could be more concentrated, contributing to the unusual bloom." "In higher concentrations, some types of blue-green algae can produce neurotoxins and cause skin rashes or stomach sickness." "'The fact we're seeing increased prevalence of microcystis blooms should be a cause for concern, because those can be directly toxic to the fish that we're trying so desperately to save,'" said Brian Bergamaschi, a biogeochemist with the U.S. Geological Survey..." "Bergamaschi's team will continue to collect such data, in hopes of preventing a bloom recurrence in future years. He is working in concert with NASA scientists, who are using satellite imagery and other technology to identify patterns in the Delta ecosystem that may be contributing to the algae blooms." (<http://www.waterdeeply.org/articles/2015/08/8333/unusual-delta-algae-eruption-worries-scientists/>) The reduction in flows through the delta from the drought precipitate the same kinds of conditions that will occur to this part of the delta from the north delta diversions of the BDCP Proposed Project and alternatives and the resulting reduced flows in these delta reaches. The BDCP has failed to adequately evaluate this project impact and utilize the best available science that is referenced in this article. The BDCP must conduct a full analysis of this impact of flow changes on the delta and avoid, minimize and mitigate these unquantified and undisclosed BDCP impacts in a revised and recirculated public draft EIR/S. The BDCP can avoid and minimize this impact by utilizing the "West Delta" intake location project alternative described by Craig Wilson in other comments submitted

herein as well as by south delta intake criteria compliant fish screens that would improve central and south delta water quality. The BDCP EIR/S cannot claim that this impact and impacts like these are "significant unavoidable" as the western intake configuration would clearly significantly reduce and avoid this current Proposed Project/Action impact.

4.2-45, line 17 "For the reasons described above, the effects of the No Action Alternative (ELT) on Microcystis levels, and thus microcystin concentrations, in surface waters upstream of the Delta, within the Delta, and in the SWP/CVP Export Service Areas relative to Existing Conditions would be similar to or less than those described for the No Action Alternative (LLT)..." This conclusion is in direct contradiction to the preceding impact discussion, "Elevated ambient water temperatures in the Delta, and thus an increase in Microcystis bloom duration and magnitude, are expected under the No Action Alternative (ELT), relative to Existing Conditions. However, the effects of elevated ambient water temperatures on Microcystis at the ELT are expected to be less than would occur at the LLT." (4.2-44, line 36) The discussion is well reasoned and written and then, systematically throughout this document, the impact conclusions are changed and are inconsistent with and often in direct contradiction to (as in this example) the supporting discussion. Calling this a systematic bias in this document is an accurate accusation as this misrepresentation of the analysis in the conclusions occurs frequently and throughout this document and the conclusions always are less severe than the analysis discussion indicates. This EIR/S must be revised so that the impact conclusions are consistent with and supported by the impact discussion. The agency decision makers must not accept these conclusions when they are not supported by the preceding impact discussions. The corrected impact conclusions must be recirculated in a revised document for public comment to redress these biased and misleading conclusions.

4.2-51 Delta Smelt - The 2008 FWS OCAP BiOp RPAs also required implementations of habitat restorations, predation management and physical changes to the south delta intakes in addition to the changed water operations to avoid jeopardy of the species from extinction from the continued operation of the CVP/SWP facilities - see related comments. DWR and Reclamation have mostly complied with the altered their water operations, but have failed to plan or implement the habitat restorations, predation rate management and intake modifications for increased salvage survival rates that are also required by the OCAP BiOp RPAs. DWR and Reclamation remain in violation of the ESA as defined by the required RPAs in the OCAP BiOp. Since the BiOp concluded that these restoration actions were required to avoid jeopardy and these actions have not been implemented it is logical to conclude from the BiOp analysis that the species may go extinct instead of the mere 5% population loss the BDCP EIR/S concludes. One of these analyses is wrong and since the OCAP BO carries the force of law, we must conclude that it is the BDCP EIR/S analysis that is wrong and it must be corrected to be consistent with the OCAP BO analysis and conclusions. FWS is a lead agency on the BDCP EIR/S and it must not allow the analysis approach, methodology and conclusions to be so inconsistent with their OCAP BO analysis on this same species for this same time period and assumptions.

4.2.14 The recreation section of the BDCP EIR/S addresses changes in reservoir operations impacts on reservoir fisheries, but fisheries and aquatic resources do not address these impacts. The BDCP EIR/S must be revised so that the geographic scope of impacts is logical and consistent. Recreation is correct in acknowledging the operational change impact on the reservoir and the fisheries section is incomplete and deficient for ignoring these impacts. In previously submitted comments we identified rationale for the impacts of operational changes in the reservoirs rippling upstream to the first impassable fish barriers which also must be addressed in a revised EIR/S document.

4.2-69, line 24 "...habitat restoration projects, would not result in a substantial increase in the public's risk of exposure to vector-borne diseases because of the location of existing vector habitat, restoration design, and consultation with MVCDs. This is because habitat restoration would be located in areas that are already potential sources of vectors, such as existing channels or agricultural areas." This is a fundamentally flawed argument to dismiss the significant increase in public health risk of mosquito vectors of disease on the human and animal population. First, the amount of mosquito population and human health risk is proportional to the amount of habitat for the mosquitoes. If you double the amount of habitat, you double the amount of risk in that geographic area and to some lesser degree as you move farther away from those locations (depending on prevailing wind directions). Saying that there is no increased risk because there is already some habitat in the area is a false and misleading assertion by the BDCP that defies any application of common sense. The BDCP has provided no habitat designs so we cannot just take their word for how the habitat restorations will somehow manage to not create additional mosquito habitat. The BDCP must disclose these designs and subject them to critical analysis rather than just providing unsupported assurances. Lastly, just consulting with the MVCD does not do anything to actually mitigate impacts of increased mosquito habitat risks to human and animal health. The BDCP must disclose some specific plan of action with the MVCD that would result in a mitigation and this statement by the EIR/S must not be credited with any avoidance, minimization or compensatory mitigation credit without these specific plans and disclosures. This is a significant impact and the BDCP must disclose it and address it in a meaningful and functional way.

4.3.1, line 7 "Model simulation results for Alternative 4A Early Long-term (ELT), which are represented by the range of Alternative 4 H3 (ELT) and Alternative 4 H4 (ELT), are summarized in Tables B.1-1 through B.1-3 in Appendix B of the RDEIR/SDEIS. Model simulation results for Alternative 4A at Late Long term (LLT) which are similar to the range of Alternative 4 H3 (LLT) and Alternative 4 H4..." As stated in previous comments, the lead, responsible and cooperating agencies must not accept an analysis on the Proposed Project that is only based on the interpolation of other modeled scenarios. Best available science requires that the alternatives that have any differences in assumptions or operations must be modeled and analyzed separately. Further, CEQA requires all alternatives to be analyzed at the same level of detail and level of effort and using other scenario results to analyze another that was not modeled at all clearly fails this requirement.

4.3.1-5, line 3 "Under Alternative 4A, average annual total south of Delta CVP deliveries as compared to No Action Alternative, would increase by about 5%." So the simple math on the cost/benefit of the project is that the incremental 5% of water to the south of delta deliveries must be worth more than the cost of the construction of the cross delta conveyance facilities. This cannot possibly be economically feasible costs for agricultural beneficial uses even though that is what the BDCP claims this water would be used for. This cost of water can only be justified by M&I applications so this project is not just partially contributing to Growth Inducement, but is in fact this additional water delivery is 100% Growth Inducing.

4.1.3-9, line 17, "Under Alternative 4A as compared to the No Action Alternative, the frequency of years in which cross-Delta transfers would occur would decrease." This statement defies common sense, is misleading to the reader and is directly in contradiction to the discussion that follows it. In the next sentence, the EIR/S says that the north delta diversions increase transfer capacity and increase the period in which transfers could occur and then states that operational constraints on transfers from reverse flows are lessened by the north delta intakes so that increases transfer capacity as well. The BDCP EIR/S fails to analyze and mitigate the impacts of this increased water transfer capacity and its growth inducing affects.

4.3.1-9, line 34 CEQA Conclusion - The EIR/S omitted the CEQA impact call that are from the description, "significantly adverse". The EIR/S also failed to identify measures to avoid, minimize and mitigate these significant impacts. This material omission and deficiency in the EIR/S must be rectified and submitted for an additional round of public review and comment.

4.3.2, line 4 "Alternative 4A water conveyance operations would be similar to the range of possible operations for the spring Delta outflow requirements that would occur under Alternative 4 H3 and Alternative 4 H4." See previous comments regarding how inappropriate it is for the analysis to rely upon interpretation of other alternative scenario modeling, which are not the same as Alt 4A, to use in determining the Proposed Project impacts.

3B.2.6 - Erosions and sediment control are integral to managing and minimizing the impacts of the BDCP project. The level of detail in the description of the plan to develop a plan is not even programmatic in detail. It is impossible to determine the amount of impact the project will have with no project-level detail in such a critical plan that will be integral to avoiding and minimizing impacts. The SWRCB, USACE, USEPA, AQCB, and other agencies must not accept this lack of a plan and lack of ability to quantify impacts, or the level of mitigation that would be achieved. Given this lack of substance on this critical topic, this document does not merit consideration for issuance of construction-related permits for the BDCP.

3B.2.21 - The BDCP proposal to do subsequent NEPA and CEQA documents for integral parts of the project is clearly piece-mealing the impacts of the project and is in violation of NEPA and CEQA. Alternatives 2A, 4A and 5 are not described or disclosed at a project level of detail and will require additional NEPA and CEQA analysis and disclosure prior to approval and construction. A project-level project description and impacts analysis must be provided by the BDCP prior to the regulatory agencies consideration of issuance of any construction-related permits to the BDCP project. Many essential elements are missing from the BDCP project description that make it less than project-level. Additional plans and definitions are required for at least, but not limited to, the following: volumetrics of tunnel muck coming out of each tunnel portal; statistically valid sampling representation of chemical and physical composition of the tunnel muck materials for each portal; the disposal method, location and management of tunnel muck for each tunnel portal; the make, model, hours of operation, period of operation of all equipment used at each work site; specific runoff and erosion control actions for each site; volume of cement at each batch plant and each construction site; volumetrics and engineering scale site plan for each tunnel muck disposal site; schedule and plan for distribution of tunnel muck during the construction period for each disposal site; specific engineering plans and volumes of tunnel muck reuse; site specific locations and contingency containment vessels for fuel depots; barge routes, schedule, and equipment (including loaded and unloaded draft); north delta intake operations plan and model (the intakes are the only operational feature in the entire CVP/SWP system that does not have an operations model) that reflect daily inter-tidal operations; the specific length and footprint of each intake facility and screen (currently they are only described as widely varying ranges); calculated volumes of sediment removed at north delta intakes from water diversions and the disposal and handling plans of that material; correct spatial representations of the project footprint (see related comments on tunnel muck disposal site map representations and other project features); specific storm water plans for each construction, staging, parking lot and disposal site; plans for restoration of disrupted Reclamation District drainage and water supply facilities; etc.

3B.3.1 - The project identifies that it results in significant and unavoidable degradation of water quality in the delta as a result of the project. The affected and harmed water rights holders in the delta have senior water rights to the CVP/SWP. The BDCP has no right to degrade the water quality and beneficial uses of water of these senior water rights holders. The fact is that the BDCP water quality impacts are avoidable by operating the CVP/SWP in a manner that does not violate water quality standards. This may result in less water deliveries, but that is what is required in order to avoid significantly impacting the senior water rights of the other delta water diverters. The BDCP must implement reduced and reconfigured operations so that it avoids this impact as it is not an unavoidable impact as the BDCP characterizes it to be. The financial limit of facilities and infrastructure to make senior water rights holders harmed by the BDCP project must not be left to the discretion of the BDCP. The SWRCB and EPA must not issue permits to the BDCP unless all harm done to the delta senior water rights holders by the BDCP is remedied before they should even consider issuing construction- and operations-related permits to the BDCP.

3B.3.3.1, 3B.3.3.2, and 3B.3.3.3 - Since the BDCP already knows from the EIR/S impact assessment where and when water quality impacts would affect delta diverters, the BDCP must define, to a project level of detail, the specific mitigations proposed for each of these impacts. Some of the proposed mitigations are potentially more effective than others so knowing which proposed mitigation applies to which harmed water rights holder and what geographic area and sensitive resources it contains are integral to determining the sufficiency of the proposed mitigations. Several of these mitigations potentially have substantial impacts of their own, e.g. moving water intakes or interties. The BDCP has only identified potential approaches to minimizing the water quality impacts of the project, but they have provided absolutely no assurances of any action or provided any supporting analysis or disclosure of the potential effectiveness of these BDCP proposed remedies. If water treatment facilities are required for a project to mitigate water quality impacts, then water quality permits may not be issued.

3B.4.3 - This section misses the entire point of a storm water pollution prevention plan. There are no elements of a storm water prevention plan included in this section. The section simply declares that project effects on vernal pools and some avian species would be reduced to less than significant levels without providing any information regarding how storm water pollution would be addressed. This section fails to address impacts to the other terrestrial species and aquatic species entirely. This section does not address the quantity and quality of storm water runoff and pump-off from construction sites, facilities, staging areas, vehicle and equipment parking lots, tunnel muck disposal sites or other project features which will result in storm water discharge. The storm water pollution prevention plan must include: an analysis of the types and risks of transport of all types of contaminants (e.g. sediment load, pesticides, solvents, fuel, oil, etc.); an analysis of the volumes of runoff; the treatment and mitigations proposed for each type of contaminant for each site (settling ponds, water treatment facilities, contingency fuel storage impoundments, etc.) prior to discharge to waters of the US; an analysis of the water quality resulting after the water treatment prior to discharge; and, an analysis of the sensitivity of the receptors (aquatic and terrestrial habitat suitability impacts, plant and animal species effects, compliance with discharge water quality requirements, impacts to beneficial uses of water. etc.). This EIR/S claims to be a project-level analysis but does not provide any project-level information about how water quality requirements for storm water discharges would be attained. The above described analyses must be completed at a project-level of detail, including the exact storm water facilities to be constructed and the resulting water quality anticipated for the discharges to waters of the US. Once this project-level analysis is completed the new material must be recirculated in a public draft or a subsequent environmental document must be prepared prior to sufficient information being available to warrant consideration by the issuing agencies any construction- or operations-related storm water discharge permits or clean water act certifications. In a related comment, the BDCP EIR/S does not address the water quality and water

treatment requirements of their discharges to waters of the US from the BDCP proposed dewatering activities. All of the above comments also apply to this omitted analysis and disclosure of the BDCP EIR/S.

3B.4.4 - This section misses the entire point of an erosion and sediment control plan and there is no reference as to where one could be found in the document. There are no elements of a erosion and sediment control plan included in this section. The section simply declares that project affects on some avian species would be reduced to less than significant levels without providing any information regarding how erosion and sediment would be addressed. This section also failed to address how these mitigations would apply to other terrestrial species, e.g. Giant Garter Snake (GGS) or listed fish species. Sediment deposited by the project into the waters of the US can adversely modify designated critical habitat for listed fish species. This adverse modification from sediment delivery to waters of the US can affect habitat quality from contaminants (e.g. nutrient loading, lead, mercury, petroleum products, pesticides, turbidity, dissolved organic carbon, total dissolved solids, etc.) These BDCP erosion (delivered by storm water and wind erosion) degradations of water quality and therefore habitat suitability can profoundly affect these listed fish species by affecting their habitat quality, food base composition and availability, sexual maturation processes, spawning and rearing habitat, fecundity, predation and survival rates, etc. The affects of these are different of each listed fish species, so these mitigations must be evaluated separately for each one. Erosion can also cover up and alter the quality of GGS foraging, rearing and home habitat. These omissions and lack of material disclosure must be corrected in a recirculated revised public draft EIR/S. All of these comments also apply to the preceding and following mitigation measures in this appendix (including, but not limited to 3B.4.3, 3B.4.5, 3B.4.6, 3B.4.7, 3B.4.8, etc.)

3B-111, line 34 - There is a significant problem with the proposed mitigation for riparian brush rabbit and Giant Garter Snake (GGS). The BDCP proposes to do habitat restoration after the destruction of the habitat from construction and tunnel muck disposal. The displaced animals will have no habitat to seek refuge in if the mitigation habitat is not implemented prior to the destruction of their habitat by the BDCP. Since the BDCP is converting nearly all the suitable habitat for these species in the Glanville Tract area, these members of these listed species will be predated and extirpated from this whole area. Even if habitat is restored later as the BDCP currently proposes, there may not be any members of these species left to move into and occupy this new habitat. Additionally, the linear connect the dots geographic distribution of the existing habitat that will be destroyed by the BDCP project is an important corridor and mechanism to facilitate species movement and connectivity with other genetic population groups. The habitat islands that the BDCP will destroy are in roughly a dozen mile long north/south corridor with habitat refuge every couple miles. This current geographic distribution of habitat and refuge is essential to the maintenance of these species. The San Joaquin County HCP plans GGS habitat at the south end of the habitat corridor that the BDCP would destroy. The loss of the habitat corridor from the BDCP project significantly diminishes the conservation and species restoration benefits of the planned SJC HCP. The habitat mitigations the BDCP must implement must replace this habitat connectivity component as well or even more importantly than the absolute quantity and quality of habitat lost due to the project. There are distinct population groups documented for the GGS that the loss of this corridor will be a significant loss that threatens not only the population group directly affected by the habitat loss, but also indirectly effects the adjacent population groups which loose the contribution of the genetic integrity of the directly affected population. The BDCP must restore the habitat before it is destroyed and the geographic distribution of the habitat mitigations must be located and distributed such that habitat and genetic conductivity are maintained in at least its current level of function and value to the species. USFWS and CDFW must not approve incidental take permits for the BDCP unless all aspects of the habitat loss are fully

addressed as described above.

Section 3B.4.9 - 3B.4.21 - Some selected special status species are addressed (incompletely) in these sections, but most other listed species are not addressed, e.g. GGS and listed fish species. This material omission of information and disclosure must be addressed in a revised and recirculated public draft EIR/S.

3B.4.22 - This section identifies where the plan is discussed. All other sections in this appendix which address a plan must also reference where those plans can be found in the document. If those plans do exist then the BDCP has effectively hidden them in 40,000+ pages of document and has not appropriately disclosed them by making them accessible to the reader with appropriate section references. This section addresses, incompletely, a few of the avian species affected by Selenium, but it fails to address any of the other special status and listed species that are affected by Selenium, e.g. smelt, salmon, sturgeon, salamanders, GGS, etc. Even this cursory treatment of the effectiveness of a Selenium management program stands in stark contrast to the complete absence of any attempt by the BDCP to address or disclose other project driven contaminant affects on species which also require management plans. The omitted and not disclosed materials in this case would be similar, but more complete discussions of, the effectiveness of a mercury methylation management plan and similar plans for lead, DDT, dissolved oxygen, salinity, bromide, chloride, etc. These material omissions and deficiencies of the BDCP EIR/S must be addressed with new and previously undisclosed information in a revised and recirculated public draft EIR/S. New material information may not just be presented in the final EIR/S. Legally, according to both NEPA and CEQA material new information must be presented in a revised public draft which allows the public to comment on this new information. This comment applies to all material omitted information and revised material new information from this public draft which triggers the need for recirculation of this document as a public draft.

3B.5 - The BDCP must clearly distinguish between actions that mitigate for the impacts of the project and those which result in a net increase in the amount of habitat and species protection. The way the BDCP has presented them here, they have not differentiated these two aspects of mitigation vs. contribution to species protection and recovery. The quantities of these CMs for alternatives 2A, 4A and 5 appear to be inadequate in magnitude to even mitigate for the species impacts from the construction of the BDCP, let alone mitigate the on-going SWP/CVP facilities and operational impacts or additionally above and beyond these levels to contribute to species protection as this EIR/S section represents these CMs to be. The BDCP is double counting the habitat created as both compensatory mitigation and as "protection and restoration". The resource agencies evaluating the merits of the BDCP for potential Incidental Take Permits must not allow this attempted double counting by the BDCP. The agencies must insist on a separate accounting for each category, mitigation for the BDCP construction and operations impacts, mitigation for the on-going impacts of the CVP/SWP facilities and operations (not adequately addressed in this EIR/S to cover these actions), and contribution to species conservation, protection and restoration. Only once these categories have been separated can any judgment be made as to the final impact of the project on the species and resources and determine if, after mitigation, significant impacts have been mitigated to less than significant. None of these post-mitigation impact calls can be relied upon until 1) the categories have been separated as described, and, 2) there are project-level designs and analysis for these conservation/mitigation measures. The nature and magnitude of impacts of these conservation/mitigation measures cannot be evaluated without project-level designs and analysis. As an example, for intertidal habitat conservation/mitigation, the fisheries species impacts depend on where the levee breaks are located. If they are located on the upstream side of the restoration area, then delta smelt may be benefited to the detriment of rearing salmonids while if the levee breaks are on the downstream side of the inundated area then rearing salmonids may benefit with detrimental affects to smelt species. Water

depth and water turnover design characteristics (determined again by levee break locations) of habitat restorations will determine the rate of methylization of mercury. Until these project-specific design elements and others are defined it is impossible to say which species are affected (adversely or beneficially) so it is impossible for the BDCP to claim benefit and impact mitigations from them let alone contribution to species protection. The agencies utilizing this document to support decision making must insist that the required level of detail is provided by the BDCP to support analysis so that the real impacts and mitigation values and contributions to species protection can be quantified prior to consideration of issuance of any permits based on this document. The analysis of the species relationships to these conservation measures is also incomplete as it only addresses avian and other species and does not address GGS or listed fisheries species.

3C-1, line 16 "Rather, the EIR/EIS may later be supplemented through additional environmental documentation..." The BDCP should add to their list of permits that will require supplemental environmental documentation a 401 certification, a 303, Cal trans right of way, a 408, wastewater discharge permit, Section 10 Rivers and Harbors Act, and many others. This BDCP statement of the need for additional environmental documentation refers to just conveyance construction-related environmental analysis and supporting permitting requirements. This putting off of impacts analysis until a later separate document is classic piece-mealing of impacts and is in violation of both NEPA and CEQA. What is even a worse piece-mealing violation is that all the other non-conveyance conservation measures are not developed to or analyzed at a project-level of detail either and definitely will be subject to additional environmental analysis prior to potential implementation. These non-conveyance conservation measures are integral to completing the project purpose and need and project objectives. The BDCP must complete all of the components of the project that it desires permits based upon prior to the issuance of permits that rely upon the project-level impacts and benefits of the project. As an example, the BDCP desires Incidental Take Permits to cover construction-related activities for the conveyance (which is not analyzed at a full project-level of detail) based on compensatory mitigations of other conservation measures which are not fully enough developed to characterize and evaluate at a programmatic let alone a project-level of detail. As stated earlier, these types of conservation measures and mitigations must be developed to a project level of detail or the impacts and benefits to the species cannot be characterized or quantified - see related comments. Since the BDCP is relying upon these conservation measures to justify the ITPs for the construction and these conservation measures cannot be truly evaluated without a project-level of detail, the project may not be issued permits until the conservation measures are developed and analyzed at a project-level of detail.

Table 3C-1 - North Delta Intakes: Most of these descriptions are programmatic or less than programmatic in level of detail provided and disclosed. It is not possible to determine from this EIR/S description which intakes go with which alternative. Most descriptions of size are ranges which are represented as averages, e.g. "intake footprints average from 90 - 160 acres". It is not possible for a range to be an average. In order for the environmental impacts of the analysis to cover the magnitude of the impacts of the construction footprint, the analysis must make the conservative assumption and analyze the largest footprint of disturbance that the project design anticipates. If the analysis assumes a smaller size, e.g. 90 acres, than the actual size of area of the construction footprint, e.g. 160 acres, then a large portion of the impacts from the difference in size of the construction footprint go unquantified, undisclosed and unmitigated. The BDCP EIR/S has clearly failed to take this more conservative and more full disclosure strategy and therefore permits must not be issued for any (and each) area of disturbance that is larger than what was analyzed, disclosed and mitigated in this EIR/S document. If the analysis is for 160 acres of footprint and the construction footprint turns out to be only 90 acres then the permit would cover the impacts. If the analysis and mitigation is for 90 acres, then anything over 90 acres is not covered by the document and must not be covered by any permits issued based upon this document. This same shortfall of the current analysis of the impacts of the



BDCP construction also apply to duration of activities. The table says intake construction would take between 3.5 to 4.5 years and last 5 to 7 years and seems to assume some constant level of equipment activity. The air quality impact analysis must take the conservative approach and assume peak equipment activities for the longer duration schedule in order for the environmental analysis not to come up short on quantifying, disclosing and mitigating project impacts and that it does not, during anytime during that period, exceed air quality attainment requirements.

Table 3C-1 - Concrete Intake Structures: Most of the descriptions here have the same deficiencies as the previous comment in that ranges are insufficient to support a project-level analysis and construction-related permitting, e.g. intakes may be from "700 to 2300 feet long". That is an over 300% range which does not qualify as even a programmatic level of description. There is no disclosure of the volume of concrete to be used or related hauling equipment, trips or distances. The current draft EIR/S project description is even less project-level than the previous draft EIR/S as the schedule component to this activity has been omitted in the revised draft. Unless the EIR/S analysis has always assumed the largest end of the range (it has not) and the construction actually occurs under this footprint and construction duration range, this environmental document has failed to quantify, disclose and mitigate impacts and therefore cannot be suitable as the basis of justification for issuance of construction-related permits.

Table 3C-1 - Clearing and Grubbing: The description fails to give a timetable, quantify magnitude or maximum levels of effort to be covered by the permit and to identify the type of equipment to be used. None of the information in this tables refers to other sections in which related or supporting detail description or analysis could be found. If this and other project-level information is elsewhere in the document, the BDCP has effectively hidden it in their 40,000 plus pages and therefore, with the lack of references between relevant information may as well as not been disclosed at all. If this missing and related information does exist in other parts of this document, then the BDCP must add those references and referrals between sections and recirculate the document so the document is more accessible to the reader and decision maker. If this information is not in some other section of the document, a revised EIR/S must be recirculated with this material new information.

Table 3C-1 - Construct Detour Roads: How much dewatering will be involved with this activity and where will it be discharged? These activities have undisclosed impacts that are necessary for waste discharge permitting. Without this information these waste water discharge permits must not be issued based on this document. 971,500 cubic yards of compactable material is a very precise number. The BDCP does not show any of the assumptions or design detail that it must have taken to produce such a precise estimate. The BDCP must disclose this information and make it available for analysis or it is not utilizing the best available information to conduct the EIR/S analysis. Project-level site plans must be analyzed to make sure that minimum turn radius bends have been designed for the detours to accommodate the semi-truck traffic along these roads. Signage plans for warning drivers of changed conditions and maximum advisable speeds must also be defined. Caltrans must not issue any state highway road modification permits unless sufficient project-level information is provided by the BDCP environmental document.

Table 3C-1 - Perimeter Berm; Levee Widening: Most of these descriptions are programmatic or less level of detail and cover ranges of 200-300%. Some metrics are extremely precise and in direct contradiction to the ranges of assumptions that the disclosed range of dimensions would have the calculations based upon. As an example, the length of the levee modified would "range from 800 - 2500'" and the levee, toe to toe would "range from 180 to 360'". The combination of the lower ranges of both of these as compared to the upper range of these construction fill volumes varies by a factor of 6, but the amount of fill estimated for each intake ranges from 1,450,000 cy to 1,490,000 cy. This is a range of less than 3%. Either the BDCP has a much greater level of detail to support this narrow range of volumetric fill calculation which they have not disclosed (contrary to NEPA and CEQA requirements)

or the volumetrics disclosed are based on a false calculation that implies much greater precision than the project level of detail supports. Either way there is a material omission of disclosure or error represented here which must be corrected in a revised and recirculated public draft EIR/S.

Table 3C-1 - Construct and Remove Cofferdam Sheetpile: These descriptions are programmatic and lack specific detail to support fish rescue plans and to estimate the amount of take that would occur from this construction. Even the programmatic description of the rate of installation of the sheetpiles has been removed from the document. Without the rate of pile driving, a sound abatement and mitigation plan for fish protection cannot be developed either. Pile driving sounds in water can be lethal to fish and the BDCP makes no reference here as to in-water sound abatement plans. The BDCP plan to have sheetpile at "approximately the top of the existing levee crown" shows a reckless disregard of the BDCP for flood safety and the protection of the people, wildlife and businesses that are subject to flooding and are at an increased risk of flooding from the BDCP construction and facilities. The cofferdam sheetpile must extend above the existing levee crown and must take into account wind fetch that the sheetpile is more vulnerable to than the existing levees. Emergency equipment and materials (large rock) must be stockpiled at each in water and levee modification construction location as a contingency to reduce the increased flood risk due to BDCP construction. Emergency contingency plans, such as this one, also are not identified, evaluated or disclosed as avoidance, minimization and mitigation actions. These are material deficiencies of the current EIR/S and must be recirculated in a revised draft that addresses these material issues.

Table 3C-1 - Intake Excavation: Most of these descriptions are programmatic and cover ranges of up to 950% but some are extremely precise and are in direct contradiction to the ranges of assumptions that the disclosed range of dimensions would have the calculations based upon. As an example, the area of the excavation would range from 0.2 to 1.9 acres and the depth would range from 30 - 35'. The combination of the lower ranges of both of these as compared to the upper range of these fills varies by a factor of 11, but the volume of excavated material provided by the BDCP is a specific number rather than a range that would be supported by the project description provided in the BDCP EIR/S. Either the BDCP has a much greater level of detail to support this narrow range of volumetric fill calculation which they have not disclosed (contrary to NEPA and CEQA requirements) or the volumetrics disclosed are based on a false calculation that implies much greater precision than the available level of project detail could support. Either way there is a material omission of disclosure or error represented here which must be corrected in a revised and recirculated public draft EIR/S. This section describes dredging upstream and downstream and adjacent to the intake screens, but does not describe any strengthening of the levee toe in these areas that would be required to ensure continued levee integrity (protection from slumping and failure) that would be compromised by the channel dredging. Further, dredging caused changes to channel velocities and impacts to the vector of flows are not discussed in terms of how they affect fish screen performance (sweeping and approach velocities) as well as impacts to levee erosion. This type of channel modification requires 2D and 3D modeling of water velocities that the dredging plan clearly has not included and must be included in order to potentially qualify for a Section 10 Rivers and Harbors Act dredging and in-water construction permits. These permits require a project level of detail. "Prepare a written description of the project that covers the project features and activities and proposed construction methods in detail. The project description typically contains information about the location of the activities, what the project features and activities will consist of, how the activities will be conducted, what equipment and materials will be needed for the activities, how access to the site will be achieved, and the schedule of activities. For the Section 10 permit, other specific information USACE will require includes information regarding the types of structures to be constructed, the materials the structures will be built from, and the structures' effects on navigability of the waterway."

(<http://www.sacriver.org/aboutwatershed/permitguide/permitttype/section-10-permit>). The BDCP does not have any of this specificity in the project descriptions for each of the intakes or definitions of the area and extensiveness of the dredging activities for each. This information must be included in the EIR/S in a recirculated public draft for this new material disclosure.

Table 3C-1 - Excavation Cell and Retrieval Pit: There is a very high degree of precision represented here with these volumetric estimates. Give the significant digits of these estimates that they must be accurate to less than the nearest 500 and 50 cubic yards respectively. Again, either the BDCP document is representing a far more detailed analysis than they actually can do with the available information or there is more detailed information available that is not being disclosed. Either way, the reader is being misled and misinformed and permitting based on this information must not be issued until the BDCP has reconciled these discrepancies in a revised and recirculated public draft.

Table 3C-1 - Foundation Pile Driving: Some of the information that previously described the project in a greater level of detail (still not project-level) has been removed in the revised draft EIR/S so the content is even more programmatic in level of description and analysis than the first public draft EIR/S. This is not a project level of project description or analysis. The document says the number and location of piles may change. That is fine if the impacts assumptions cover the upper end of what the BDCP actually does. If it does not then there will be impacts that are not identified, evaluated, disclosed or mitigated in the EIR/S and construction-related permits must not be issued for this deficient level of detail and completeness of analysis and disclosure contained in this EIR/S.

Table 3C-1 - Dewatering: DWR and Reclamation surface water rights do not include diversion of water for use in dust control operations. Discharges back to the river must be treated to a level that comply with discharge permits which are typically drinking water quality standards that will require more water treatment than just a settling pond for suspended solids. Water sprayed on the levee top for dust control can drain back into the river along with contaminants from the exposed soil and from work site contamination, e.g. hydraulic fluid from earthmoving equipment. These impacts to water quality from construction activities were not identified, characterized, quantified, avoided, minimized, mitigated or disclosed in the EIR/S. For this to be a project level disclosure, an upper end estimate of the volume of dewatering must be identified along with the timing, lift required and make and model of pumps to be used. Without these specifics, power, water quality, discharge volumes, soils/geology and air quality impacts to name a few, cannot be determined. The EIR/S does not disclose what volume and characteristic of materials collected at the settling ponds will be or how they will be disposed of.

Table 3C-1 - Pipe/Conduit Construction: The 15,876 cy of tunnel material indicates an accuracy of plus or minus 1 cy which is either not supported by the variable width of the levee estimated in previous sections or is based on much higher precision project plan designs than have been disclosed by the BDCP. The size and length of the pipe has been deleted from the EIR/S which would be information withheld from the public that are necessary to even start a calculation of the pipeline muck discharge volumes. Permits must not be issued based on these estimates until these inconsistencies and failures to disclose have been corrected and issued in a revised public draft EIR/S.

Table 3C-1 - Clean and Demobilize: The BDCP has deleted the schedule that was previously a three month period and now claims that this work can be accomplished in 5 days. Cleaning equipment can mobilize contaminants like machine oil, but the BDCP does not describe any plan to capture and treat these contaminants. The BDCP also fails to describe sanitation plans for equipment as they move from construction site to construction site. Land-based equipment can transport invasive weed seeds and aquatic invasive species in mud stuck to the equipment if not sanitized properly. Water-based equipment can transport invasive aquatic species, e.g. quaga mussel, zebra clam, egeria, hydrilla,

Chinese mitten crabs, etc. from site to site without proper sanitation which the BDCP fails to describe or define. The BDCP must fully adopt the Bureau of Reclamation's Technical Memorandum No. 86-68220-07-05 "Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species" (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=48043&inline>) Visual inspection alone as the BDCP describes will not prevent or avoid transport and infestation of invasive species. Early life stage mussel colonization is not readily visible. Early mussel colonization on surfaces is detected by touch from a sandpaper texture change caused by the mussels that visual inspections as proposed by the BDCP would miss. Reclamation is a lead agency on the BDCP project and it must have the BDCP adhere to its best adopted standards for practices and procedures regarding the control of spread of invasive species. The Reclamation inspection protocols require specialized and dedicated facilities at each construction site. This includes high water temperature pressure washing with facilities that provide access to vehicle under carriages and catchment and treatment of wash water. The BDCP has failed to describe any of these facilities or critical operations and has failed to identify, evaluate, quantify, avoid, minimize, mitigate or disclose the impacts associated with these activities and facilities. A revised BDCP EIR/S that includes this information must be prepared and recirculated for public comment.

Table 3C-1 - Fish Screens: The document identifies smelt approach velocity and mesh size requirements, but fails to identify the sweeping velocity requirement which is needed to limit the duration of exposure of fish to the screens. Sweeping velocity is required as if there is not any, the fish would be condemned to swim away from the screens in perpetuity (or at least for hours) which their swimming performance duration will not support. If sweeping velocity were not required, the existing south delta facilities could have criteria screens on them without any other modifications required. The document identifies that the screens will keep some sediment out of the intake facilities. That may be true due to the approach velocities, but that means that sediment will accumulate in front of the screens which will require periodic dredging. The BDCP has failed to identify the need for subsequent dredging to maintain the screens or at what frequency, volume, method and seasonal timing this highly fisheries disruptive activity would occur. This must be part of the analysis to support the Section 10 Rivers and Harbors act dredging permit. Since the BDCP has not disclosed or evaluated this maintenance activity, it must not be included in any permits which are issued based on the analysis and disclosure in this document.

Table 3C-1 - Pumping Plants: The document deleted the schedule information so there is even less information to support a project-level analysis than the first public draft. This document is deficient and it is impossible to do air quality impact analysis without a full list of the make and model and usage hours of the equipment used for each construction component and construction site. If the project is to secure the air quality attainment certification it must provide this information in either a revised public draft or a subsequent environmental document which will also have to include a public draft review.

Table 3C-1 - Pumping Plant Excavation and Backfill: The first draft EIR/S had this at 442,470 cy and the revised draft has it at 117,120 cy. That is an impressive reduction in volume, but it is unsupported by any information disclosed regarding the project description. These estimates also convey that they are accurate to the nearest 10 cy so they are either quite precise or the reader is being misled by a false level of accuracy being represented in the document. The changes in the document now would also lead the reader to conclude that none of the fill material is imported as this language has been deleted. If not all of the fill material is from on-site then the BDCP has misrepresented the nature and impacts of

the project as imported materials have transportation and air quality impacts which are not identified, evaluated, minimized, mitigated or disclosed in this EIR/S.

Table 3C-1 - General Construction Work Areas: The size description is strictly programmatic and does not provide specific location and size of area of disturbance for analysis, mitigation and disclosure. The BDCP must provide a specific acreage area and location of disturbance for each work location before it can meet the test of project level analysis that could warrant consideration for construction-related permitting. In addition, the types, locations and timing of activities on the work site along with the specific make, model, timing and duration of operation (among other information) would be required to meet test of specificity and disclosure to warrant consideration of project-level and construction-related permits.

Table 3C-3 - Excavation: The volumes for the revised alternative 4 contain a great deal more specificity and detail than the other alternatives. This level of detail still falls far short of a project-level description as the locations and haul distances of each type of earthwork along with equipment and hours of utilization are not specified. The same is also true of the level of detail regarding power supply and grid connections, haul and access road, and barge related sections with regard to the disparity of alternative 4 level of detail vs. other project alternatives. NEPA requires an equal level of detail in describing and evaluating each alternative which was not provided for any of the other alternatives so the BDCP EIR/S is in violation of NEPA for providing an unequal level of information, detail, effort and analysis between alternatives.

Appendix 3C - This is a global comment for this entire appendix and the rest of the EIR/S document. Any statement that is prefaced with "may", "could", "might", or "likely" are too conditional a terminology to be acceptable as a project-level description as it leaves the method or action in question as to how it would actually be done which in turn could significantly alter the level of significance of impacts of the project, the mitigations required and change the determination of whether the project warrants issuance of permits. An example of this is in Table 3C-3 - Rock Pile Protection, "Rock protection would likely be placed from a barge with a clamshell". The document fails to specify the make, model, time and duration of usage that would be required of a barge clamshell, but it reserves the option that it may be a completely other mode of rock protection delivery that would have different impacts and require different mitigations and may or may not be permissible. All of this conditional use of language must be replaced with definite specificity before this document could be considered project-level and potentially warrant consideration of construction-related permits.

Appendix 3C - This is a global comment for this entire appendix and the rest of the EIR/S document. Any values provided that represent a range of over a few percent are indicative of project description that fails to meet the test of being a project-level description. As an example, in Table 3C-3 - Rock Pile Protection, "bank protection would be from 100' to 2,200 ft" and "channel reshaping would be from 2.5 to 7 acres". In the first case the range is 2100% and in the second a little less than 300%. Neither of these ranges are meaningful or useful for a project level analysis that would merit consideration of a construction-related permit. Until the BDCP can produce a document that has a range of estimates that are just a few percent and the analysis takes the conservative approach of analyzing and disclosing the worst case scenario utilizing that refined range of assumptions, the BDCP does not merit consideration of issuance of any construction-related permits.

Table 3C-37. Access and Construction Work Areas—Alternative 4 - The BDCP provides a much greater level of detail on Alternative 4 than for any of the other project alternatives which is in violation of NEPA which requires equal level of treatment for all alternatives. Even this additional level of information for alternative 4 falls far short of being a project-level description which would warrant consideration of construction-related permits. As an example of information missing that would preclude issuance of permits, the section does not identify the location, size, drainage area or peak storm events for sizing road culverts. This is just one of many deficiencies and omissions that make this current EIR/S a programmatic document.

Table 3C-37 - Concrete Plants - The concrete batch plants are reported by the BDCP EIR/S to range from 1 to 40 acres. Descriptions with a 4000% variance are programmatic, not project level. None of the descriptions of the project that are described in ranges qualify as a project level description. This comment applies to all of the alternatives project descriptions.

Table 3C-37 - Thirty pages of construction schedule information has been removed from the EIR/S. Construction schedule information is required in order to do project-level air quality attainment and traffic impact studies. Without this (and other) project level information, the BDCP does not meet the test of a project level document and must not be awarded any construction-related permits. With the removal of this and other information from the original public draft EIR/S, the revised EIR/S is even more programmatic in level of detail than the original EIR/S was. The BDCP must produce a revised project-level project description and analysis for a recirculated public draft review and comment prior to project approval or initiation of project construction.

3D-32 - Water Supply Contract Extension Program - The BDCP incorrectly assumes that the water supply contract renewal will be approved in the same quantities as the existing contracts. This does not meet the criteria of reasonably foreseeable for inclusion in the No Action/No Project or Cumulative as there are no guarantees in the current contract that the contracts will be renewed. The CEQA document for the analysis of the impacts of the proposed contract renewals has not yet even been initiated, let alone approved as would be required to be classified as reasonably foreseeable. It is much more likely that, if the contracts are renewed at all, the contract amounts would be lower than the current amounts as the lower delivery amounts would make the contracts consistent with the requirements of the 2009 Delta Reform Act and of the 2014 California Water Action Plan to reduce reliance on Delta water supplies. The BDCP must remove this assumption of this project being included in the No Action/No Project definition. If the BDCP wants to include continued operations assumptions beyond 2035 when the current contracts expire, the BDCP must adopt a range of scenarios to analyze from contract renewals with some delivery reduction (to be consistent with current plans and policies such as the Delta Reform Act) to scenarios where they are not renewed at all.

3I.5 - AES- 1c: Develop a Reusable Tunnel Material Management Plan - This is not a mitigation, this is required for the project to be described at a project-level. Without the plan for how the tunnel muck areas will be managed, the types and severity of impacts from the tunnel muck areas cannot be evaluated. The tunnel muck disposal areas make up the largest part of the construction footprint area of disturbance so it make no sense at all that the environmental document would be silent and provide no information at all on how these areas would be managed to avoid, minimize and mitigate their impacts. These tunnel muck areas are integral and required for construction of the project so the additional needed information would not be made available in some subsequent environmental analysis such as the BDCP proposes to do for the habitat restoration actions. The regulatory agencies relying upon this EIR/S document must not accept this lack of even programmatic level of detail on such a large and integral component of the proposed project that would have to be approved based on the information disclosed in this document in order to be constructed.

Appendix 8C - Table SA-10. Step 5 - The table indicates that there are not "adequate" dissolved oxygen (DO) modeling tools available. This is not true as there are a number of modeling tools which can readily be applied to the delta - see previously submitted and related comments. DSM2-QUAL is an existing modeling tool which has been developed and tested for use in dissolved oxygen assessments in the Delta. "The ability of the model to simulate the dissolved oxygen sag on a reach of the San Joaquin River near Stockton was recently demonstrated. DSM2-Qual was capable of capturing diurnal variations of important constituents such as dissolved oxygen, phytoplankton, temperature, and nutrients under the unsteady conditions of the estuary. Variations were realistic, although lack of a large temporal variation in observed data was somewhat of an impediment to testing the model's full capacity to predict field conditions. Tests of the model's capability to distinguish between alternatives in terms of incremental changes in water quality were encouraging (Rajbhandari 1995). The model has great potential for use as a practical tool for analysis of the impacts of water management alternatives."

(<http://baydeltaoffice.water.ca.gov/modeling/deltamodeling/delta/reports/annrpt/1998/chpt3.html>)

Take note that the quote on the utility of this model for analyzing DO in the delta is from DWR's Bay Delta Office. The conclusion that this tool was useful in distinguishing incremental changes from alternatives was documented in 1995 which was 20 years ago so the best available science must be well advanced from this fully functional level from 20 years ago. For the EIR/S, the model would not be used to predict field conditions, but in a comparative mode from the baseline environmental conditions as compared to alternatives to quantify the relative change due to the alternatives. This tool, even back in 1995, was well capable of being useful for the BDCP impact assessment. DWM2-QUAL was used for other water quality impact assessments such as for Chlorides, see BDCP EIR/S Appendix 8G and Electrical Conductivity, see BDCP EIR/S Appendix 8H. The table is also incorrect in identifying that modeling is not necessary for the impact analysis. Modeling is an essential tool for evaluating such an important water quality constituent which is an essential criteria for suitable fish habitat in an area that many listed species share as designated critical habitat. The proposed project and alternatives all directly and significantly affect the water circulation patterns in the delta, the rate of turnover and freshening of water in the delta and in the accumulation and loading of nutrients that affect DO - see previous and related comments. The problem of DO is dynamic, complex and is unevenly distributed geographically which makes spatial modeling of DO an essential component of any DO analysis which strives to utilize the best available science as NEPA and CEQA analysis requires - see previous and related comments. A qualitative and such shallow subjectively applied treatment of such an important object impact is unacceptable as best available science when spatial analytical tools for the analysis are readily available, proven and generally accepted and applied for similar projects - see previously submitted and related comments.

Appendix 8H, Table EC 4 - The BDCP applied an unequal level of analysis for alternative 4 as sensitivity analysis were conducted in an attempt to explain away water quality standard violations. This same level of effort to understand the nature and sensitivity of water quality standard exceedances was not applied to any of the other alternatives. This unequal level of effort and detail is a demonstration of the bias of the BDCP toward a favored alternative outcome and the unequal treatment of alternatives is in violation of NEPA requirements.

Appendix 8H, Table EC-15A - There is a dramatic increase in the proportion of time of water quality exceedances of alternative 4 for the Western Delta, Interior Delta, Southern Delta and SJR areas during the agricultural irrigation season as compared to the Existing Conditions and No Action alternatives. Note that the Export Area enjoys a considerable increase in water quality and reduction of water quality standard exceedances. This export water quality improvement is at the direct expense of the degradation of water quality in the rest of the delta. The BDCP claims that this impact is significant, but unavoidable. This is not true. The impact is avoidable if the SWP and CVP bypass enough water in the Sacramento River to push X2 farther out, is avoidable if they use only the south delta intakes and is avoidable if they do not do the BDCP project. The CVP/SWP are junior water rights holders compared to the more senior water rights holders which would be most of the diverters in the delta. The BDCP is effectively stealing these water rights from these more senior water rights holders by making the water supply unusable or significantly impaired for the designated beneficial uses of agricultural irrigation and municipal water supplies. The beneficiaries of the BDCP are clearly the SWP/CVP export recipients and this is directly at the expense of the senior water rights holders in the delta which is an illegal usurping of water rights.

Appendix 8H, Table LT 4 SCN H1 - H4 - None of the other alternatives were provided this sensitivity analysis so these analyses and tables demonstrate an unequal level of effort between the alternatives which is in violation of NEPA requirements. The sensitivity analysis shows that at Emmaton under the Existing Conditions, the sensitivity analysis results in, on average, an 8 - 14% increase in the number of exceedances of this primary water quality compliance point. It is clear from this that regardless of the tweaks put into the operational assumptions and modeling that the Alternative 4 results in a significant degradation of the compliance with EC water quality standards across the entire delta. This degradation of EC conditions also provides insights on the impacts of the proposed project operations on dissolved oxygen and toxic algal blooms which also respond in frequency and magnitude of occurrence based on the rate of freshening of water in the delta. Since the BDCP has not done any quantitative analytical modeling for these impacts, the EC analysis should stand as proxy in representing the nature and magnitude of impacts that can be anticipated on these resources from the Proposed Project operations. As such, these would be significant impacts of the project that must be mitigated and that are currently unaddressed in the BDCP EIR/S.

Appendix 8H Attachment 1, page 5, last paragraph "Given that upstream storage in these months under NAA, Alt4 H3, or both is available, it is not unreasonable to assume that CVP and SWP operators would adjust the upstream releases to meet the salinity conditions in the Delta..." This is an untrue statement. The CALSIM and water quality and operations models are iterative. If a water quality exceedance occurs, the modeling is cycled back to the operations models for modification to avoid the exceedance and then the water quality models are run again to make sure the water quality criteria is no longer violated. This iterative cycle is repeated until the water quality standards are achieved. If there is a violation of water quality standards in the models, it is either because the CVP/SWP system is not able to comply or it is because the operational parameters of the models have been set such that they accept a certain amount of water quality standard violation. This BDCP EIR/S misrepresentation of how the models work and that impacts identified with the modeling would somehow not occur in the real world because actions outside of the project assumptions and disclosures would be implemented must be revised.



Appendix 8M - Table M9-b - This table demonstrates that the BDCP has applied much more effort and detail into alternative 4 as compared with the other alternatives which is in violation of NEPA which requires a comparable level of effort and detail between all alternatives. The most alarming results on this table are the increase in Selenium concentrations at the Contra Costa pumping plant. The Alternative 4 results show an increase of over 20% to over 35% for the drinking water supply for a major metropolitan area of over 500,000 people. This Selenium drinking water quality degradation is a significant impact and a huge human health and safety issue. Also of note is the significant improvement in water quality for the Banks and Jones pumping plants which comes directly at the expense of Contra Costa Water District and its customers.

"The projects below, which are also listed in Table 6-4, *Interim Implementation Actions: Restoration Projects with Potential to Contribute to Meeting BDCP Requirements*, of the Draft BDCP, are consistent with the goals and activities described for CM3–CM11. They have already undergone CEQA/NEPA review independent of this process and received approval, and accordingly provide meaningful examples of the activities that would be credited towards implementation of CM3–CM11." (D.1-1, line 34) The BDCP is attempting to take credit for other, completely separate, projects towards achieving the mitigations for the conveyance and operations impacts that were formerly addressed (partially) by CM3 - CM11. Since the BDCP is relying upon these other projects to mitigate the impacts of the conveyance and operations and it is clearly not allowable under NEPA and CEQA to rely upon other projects for mitigation of project impacts, the BDCP is saying that the conveyance and operations impacts are not mitigated under NEPA and CEQA. Further, the Lower Yolo Ranch Tidal Restoration Project is in response to the Reasonable and Prudent Action requirements of the OCAP BOs. The BDCP cannot be allowed to claim credit for compensatory mitigation for actions that were existing obligations of the CVP/SWP to implement prior to the initiation of the BDCP project. Only habitat restorations above and beyond the prior obligations of the CVP/SWP can be considered as contributing to the mitigations for the impacts of the BDCP. The lead, responsible and cooperating agencies must not allow the BDCP to take credit for the environmental benefits of these unrelated projects as contributing to mitigation for conveyance and operations impacts. The lead, responsible and cooperating agencies must not allow the BDCP to attempt to take double credit for these restoration efforts as both compliance with the OCAP BOs that address existing CVP/SWP impacts to ESA species and compensatory mitigation for new impacts precipitated by the BDCP. The BDCP must propose its own avoidance, minimization and mitigation actions to reduce the impacts of the conveyance and operations to less than significant and do so in a revised and recirculated EIR/S to address this material deficiency.

D.1.1.4 - This project is separate from the BDCP and speculative as to whether it will actually be developed and implemented. Yet the BDCP is attempting to take credit for any benefits to the environment from this project as compensatory mitigation for the conveyance and operations impacts of the BDCP. If the BDCP wants credit from this project as contributing to mitigations for the project, the BDCP needs to make this project a part of the BDCP and fund it. This comment applies to each of the other separate projects the BDCP has listed (D.1.1.1 - D.1.1.4) as contributing towards the function of CM3 - CM11 and contributing towards the mitigation of the BDCP project impacts.

D.3.1.2 - Goal DTMS3: The goal is not a plan and has no detail as to how the goal would be achieved. The EIR/S contains none of the information on the plan that would be required to get an Incidental Take Permit to collect or maintain the species specimens. In the attempt to collect a large enough population for genetic integrity, the BDCP project could end up extirpating and creating an extinction event from the specimen collection-related mortality. Additionally, there is no published literature on delta smelt or conservation effort experience that proves a population of this size can be collected and maintained. The BDCP must develop and disclose a plan, supported by published scientific literature and documentation of successful similar conservation efforts prior to this being considered a viable goal and/or plan. These same comments equally apply to D.3.1.3.

D.3-8, line 16 - D.2-9, line 47 - There are a number of actions described to avoid and minimize the rate of take associated with the existence of and operations of the north delta intakes. The BDCP has struck these actions from their proposed project and alternatives so all of the predation and species take that were previously reduced by the inclusion of these actions will now occur under the Proposed Project and alternatives. This impacts of an increased rate of take associated with the north delta intakes remains unmitigated by the BDCP project.

Table 3.4.1-5 - The BDCP identifies a number of hydraulic modeling studies (rows 4 - 10) that are needed to evaluate the impacts of the project and to optimize the design to avoid and minimize take associated with the north delta intakes. The BDCP mistakenly identifies these studies and models as being required for "final design". These model results are required in order for the BDCP to complete a project-level project description and to conduct a project-level impact analysis. As an example, these models will inform the BDCP on the length, depth, orientation, in-set or set-back of the intakes from the levees, setback requirements of the levees to maintain channel capacities, the location and depth of dredging and channel shape modifications required to facilitate fish screen criteria compliant operations, design characteristics of the screens themselves (i.e. refugia to reduce predation and fish take from impingement and entrainment) and water operations of the intakes related to tidal tributary flows to ensure compliance with fish screen criteria for approach and sweeping velocities. All of these results from the models will affect the physical and operational characteristics of a project-level project description, including but not limited to: location, size (length and depth) and orientation of each individual intake and fish screen; the location, length and volumetrics of levee modifications required for levee setbacks and the installation of the screens; the location and volumetrics of construction and maintenance dredging (as well as maintenance dredging frequency). The model results are also integral to the ability to evaluate the impacts and rate of take of the intakes and fish screens at a project-level of detail, including, but not limited to: approach and sweeping velocities across the surface area of each fish screen under a range of hydrologic conditions and operations, the rate of take from predation, the rate of take from impingement and entrainment, and the level of criteria screen compliance that results from the daily intertidal operations of the north delta intakes. Without these model results a project-level description and analysis cannot be completed. The BDCP must complete these sets of modeling it has identified as necessary and utilize that information in a revised and recirculated EIR/S that discloses this material new information.

Table 3.4.1-5 " Evaluation of tidal effects and withdrawals on flow conditions at screening locations  
Develop site-specific numerical studies (mathematical models) to characterize the tidal and river hydraulics and the interaction with the intakes under all proposed design operating conditions  
computational fluid dynamics model to provide information on how tidal changes and flow withdrawals affect flow conditions and sweeping velocities at screening locations. Results can be used in "Site Locations Lab Study" to set boundary conditions and validate physical model results (same as preconstruction study 2, *Site Locations Numerical Study* [Fish Facilities Technical Working Team 2013]). 8 months depending on model detail and complexity; needed prior to final design" The BDCP is correct that the operations impacts of the north delta intakes cannot be completed without this model information. The BDCP is admitting here that the north delta intake operations cannot even be developed until these model studies are done. This analysis as described by the BDCP must be completed and recirculated for public comment in a revised EIR/S to reflect this material new information.

D.3-32, line 1, " Both fall-run/late fall-run Chinook salmon and Sacramento splittail are covered fish species in BDCP." "Covered species" is a term that only applies within an HCP. The new BDCP alternatives do not include a HCP and do not have covered species. The entire BDCP EIR/S needs to be revised to remove these misleading references to "covered species".

D.3-32, paragraphs 2-4 - The BDCP has made this very unclear as to which project is doing what to comply with the OCAP BO RPAs and what component, if any, of what the BDCP proposes to do is above and beyond this existing obligation of the CVP/SWP and not already being done by a different project. Since the BDCP has attempted to claim mitigation credit for other unrelated projects, see related comments from this appendix, the fisheries agencies must do their mitigation accounting carefully and in a transparent manner to determine the exact acreage and qualities of habitat destroyed and mitigated by the BDCP. The BDCP should develop a table to disclose this quantification of habitat lost and habitat mitigated by habitat type and mitigation action to inform the public and fisheries agencies in a revised recirculated EIR/S.

D.3-43, paragraph 2 - "...the operational parameters in Table 3.4.2-1 for the extent, duration, timing and frequency of flooding events are representative of expected operations, but not binding at the programmatic level of this Conservation Measure." Waters diverted for the Yolo Bypass inundation must be supported with a portion of DWR's surface water rights, otherwise there are no water rights which would support the Yolo Bypass inundation diversions. Since DWR must use part of their surface water rights for these Yolo Bypass diversions, it affects the volumes of diversion that DWR can do at the proposed north delta intakes when inundation operations are active. The surface water diversions that are done at Yolo Bypass also affect the Sacramento River flows at Freeport which are the basis to determine the quantity of water that DWR can divert at the north delta intakes, i.e. the North Delta Bypass Flow Criteria. Because BDCP water operations are affected by the Yolo Bypass inundation diversion operations, the project-level descriptions must be provided by the BDCP before the operations level analysis of the BDCP north delta operations and water delivery volumes of the BDCP determined. The BDCP must define the daily operations of the Yolo Bypass inundation operations and then revise the BDCP water operations impact analysis. The BDCP must then recirculate for public comment the materially revised EIR/S.

Appendix D - Substantive BDCP Revisions, page D-223 - The noise dB contours are a simple GIS distance buffer from the facilities structures. This is not a noise model output or if it is, it does not have the relevant structures and terrain loaded in it. This analysis does not represent the best available science. The analysis does not reflect the locations of point sources of noise (e.g. pumps, transformer stations, loading docks, fueling docks, etc.) that come from within the BDCP facilities footprint. The depiction of noise from the project does not show how noise from the intakes that occurs within the river channel will be carried far up and down the river within the levees. For project noise that occurs within the levees, flat water does not attenuate noise and the sound will bounce back and forth within the levee far upstream and downstream of the noise source. The BDCP analysis fails to address these within channel noise impacts on wildlife and recreation and adjacent residences and businesses. This within levee noise propagation will carry far farther than noise that occurs on the land side which will be attenuated over a distance by trees, levees and other structures. The BDCP discussion is focused on Sandhill Crane but the discussion of the affects on residents and businesses is omitted. As an example, an 80dB noise is created by the project in the middle of the town of Hood. Here are some things that are in the 80dB noise range "Garbage disposal, dishwasher, average factory, freight train (at 15 meters). Car wash at 20 ft (89 dB); propeller plane flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB). Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB). 80dB is 2 times as loud as 70 dB." At 80dB there is "possible (hearing) damage in 8 hour exposure" (<http://www.industrialnoisecontrol.com/comparative-noise-examples.htm>) The rest of Hood will be subjected to 70dB noise 24/7 which is comparable to "Passenger car at 65 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB). Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB)." And, "Upper 70s are annoyingly loud to some people." (<http://www.industrialnoisecontrol.com/comparative-noise-examples.htm>)

Comment continued: Another important part of assessing noise impacts which the BDCP analysis has omitted is the ambient noise level without the project. From 10:00PM to 6:00AM, the town of Hood is nearly silent. Only some traffic noise from I-5 comes over 2 levees from a distance of 2.5 miles away. During the day, the noise level is not much different with some traffic noise going through town at the posted 25MPH (Hood/Franklin Rd) and 35 MPH (River Road). "50dB is One-fourth as loud as 70 dB. Quiet suburb, conversation at home. Large electrical transformers at 100 feet. 40dB is One-eighth as loud as 70 dB. Library, bird calls (44 dB); lowest limit of urban ambient sound" (<http://www.industrialnoisecontrol.com/comparative-noise-examples.htm>) Hood is a rural community, so it is even quieter than the 40dB level at night. Comparing the quiet ambient noise level of the existing condition town of Hood at 40dB to the 80dB of the proposed project in the middle of Hood is a sixteen time increase in ambient noise level. The other areas affected by the BDCP noise are quite rural areas at 30dB noise, which is 16 times quieter than 70dB and 32 times quieter than 80dB from the project. The BDCP must present a full analysis of noise impacts on the community, residents and businesses of Hood and other areas the project noise impacts. The BDCP must avoid and minimize these significant project impacts. If there are still 70 - 60dB noise impacts on communities, residences and businesses after the avoidance and minimization measures then the BDCP must purchase the affected properties at fair market value to compensate the current owners for the unreasonable take of the use and enjoyment of their properties. The lack of this impact analysis of the communities, residences and businesses and the lack of use of the best available science is a material deficiency of the draft EIR/S and it must be recirculated for public comment after these omissions and deficiencies have been addressed.

Comment continued: There are many numbered labels or transects on the map - thick black lines and bold black numbers - which are not explained in the text. The noise areas depicted on the maps claim they address truck noise but they only show the facilities footprint and tunnel muck disposal work areas. The maps do not show the transit routes of trucks that transport the tunnel muck from the tunnel outlets to the disposal areas nor does it show the barge routes that transport materials to the facilities. Loaded diesel semi-trucks for TBM hauling and tugboats for barge hauling are loud and are missing from this analysis entirely. From the previous comment reference, diesel trucks at 50 feet at 40MPH are 84dB. Tugboats are much louder, i.e. 100+dB. These haul routes go directly adjacent to and through Greater Sandhill Crane habitat as well as communities, and residential areas. These are material omissions of the noise impact analysis must be addressed in a recirculated public draft EIR/S.

Comment continued: The noise maps claim that the loudest sound from the project is 80dB and the BDCP claims this covers pile driving activity. Caltrans has a series of tables for noise levels for pile driving at [http://www.dot.ca.gov/hq/env/bio/files/pile\\_driving\\_snd\\_comp9\\_27\\_07.pdf](http://www.dot.ca.gov/hq/env/bio/files/pile_driving_snd_comp9_27_07.pdf). The most applicable rating for a vibratory hammer and sheet pile is in excess of 160dB. As a reference, ear drums rupture at around half as loud at 150dB. This pile driving noise at 160+dB is one hundred twenty eight times louder than the 80dB level represented in the BDCP analysis. This eardrum bursting noise level sheet pile driving will occur within the river and slough channels, which as previously commented, carries sound far upstream and downstream of the source of noise, much farther and with much less noise attenuation than over land. The barge loading location in Snodgrass Slough west of Glanville Tract is in Greater Sandhill Crane roosting habitat and is within 2 miles of core permanent roosting habitat in the Stone Lakes Wildlife Refuge. Although we do not have noise models at our disposal, given the close proximity of the source of the noise to the sensitive receptor of the National Refuge and the characteristic carrying of noise over water that well over 100-120dB of noise would occur at the southwestern corner of the refuge from barge unloading dock and other pile driving construction in this area. The sheet pile driving at the north intake junction of intake pipes and the main tunnels is less than a quarter mile from the National Refuge. There is just one levee between this facility and the wildlife refuge so there will not be very much noise attenuation between this pile driving and the sensitive receptors at the National Refuge. This construction site will require extensive and deep pile driving activities as this facility will have a large gallery constructed which merges the intake pipes to the tunnel. The number of sheet piles and cumulative depth of sheet piles may be as much as twice as much for this location as all three of the intakes combined. The sheet piles will likely need to be at least 120' deep (although we could not find this disclosed in the BDCP project description) to accommodate the gallery that would have to be deeper than the tunnels themselves (at least 80'), but we could not find this construction depth description for the project either. Without this depth, number and type of sheet pile information, hours and dates of operations, a project-level noise impact analysis cannot be conducted. The revised EIR/S is deficient in this level of detail of analysis and must not be awarded construction-related permits until a project-level description and analysis have been completed in a subsequent environmental document.

G-1, line 15 "The revised proposed project, identified in the Partially Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS), no longer includes an HCP/NCCP (see Section 1, Introduction, of the RDEIR/SDEIS for more information); therefore Alternative 4A will not be incorporated into the Delta Plan and will follow a different process to demonstrate consistency with the Delta Plan. That process is discussed below with references to relevant information in the RDEIR/SDEIS and the Delta Plan." The Delta Reform Act (SBX7 1) specifies that the BDCP must be an HCP/NCCP, so the current BDCP plan is in violation of the act - see related comments. "85053. "Bay Delta Conservation Plan" or "BDCP" means a multispecies conservation plan." The act also defines co-equal goals for the BDCP, "85054. "Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." From the quote from the BDCP EIR/S, the BDCP is not a multispecies conservation plan as required by the act. The BDCP also does not meet the co-equal goals as specified by the act as it is now only a water conveyance project that does not even reasonably meet that project need as it does not improve water delivery reliability - see related comments.

SBX7 1 - "The economic sustainability plan adopted pursuant to Section 29759 shall be the basis for the program. Funds provided to the conservancy to implement ecosystem restoration projects pursuant to the Bay Delta Conservation Plan shall only be used for ecosystem restoration purposes." Since the BDCP does not meet the criteria for being included in the Delta Plan because it does not include an approved NCCP/HCP, the state funds identified in the Delta Reform Act may not be made available to support BDCP ecosystem restoration (or any other) costs. California Water Fix is not identified in SBX7 1, so it does not qualify for funding by the terms of SBX7 1 under any circumstance.

G-2, line 22 "4. Will have a significant impact on the achievement of one or both of the coequal goals or the implementation of government - sponsored flood control programs to reduce risks to people, property, and state interests in the Delta." The BDCP directly conflicts with the achievement of the Delta Plan and must not be awarded a Certification of Consistency. The first public draft BDCP EIR/S analysis of the proposed project and alternatives has clearly determined that the implementation of the conveyance with the habitat restoration actions results in unacceptable environmental impacts - see related comments. The revised public draft EIR/S with conveyance alternatives without habitat restoration still had unacceptable significant and unavoidable environmental impacts. Further, the revised draft included a "sensitivity analysis" of the conveyance with and without selected habitat restorations. All of these sensitivity analysis results indicated that the environmental impacts of the conveyance were even worse if they were combined with any of or combination of habitat restoration actions. As a result, the BDCP new alternatives are proposed with minimal habitat actions designed to just mitigate the footprint impacts of the conveyance. What the first draft analysis and the sensitivity analysis in the second draft inform us of is that if the conveyance is implemented that it will preclude the opportunity to implement these habitat restorations at a later date as they will precipitate the same unacceptable adverse environmental impacts as the first public draft and second public draft sensitivity analyses (H1 - H4) concluded - see related comments. Since the BDCP conveyance only alternatives preclude the opportunity to implement delta habitat restorations, the BDCP cannot be consistent with the co-equal goal of habitat restoration and ecosystem protection required by the Delta Plan. Further, the BDCP does not reasonably meet the other co-equal goal of increasing water supply deliveries - see related comments.

G-3, line 12 - the BDCP does not use the best available science - see the many related comments both included here as well as previously submitted.

G-3, line 14 - The BDCP results in an increase in the reliance upon the delta as a water supply (see related comments) which is in direct contradiction to this 23 CCR Section 5003 requirement.
G-3, line 20 - The BDCP results in a reduction in the opportunities to restore habitat (see comment on G-2, line 22) which is in direct contradiction to this 23 CCR Section 5007 requirement.
G-3, line 22 - The BDCP creates new habitat for invasive nonnative species which is in direct contradiction to this 23 CCR Section 5009 requirement. The intakes, tunnels, pumping plants and new Forebays create new habitat for quaga, zebra and other invasive mussels and clams - see related comments.
G-3, line 23 - The BDCP is growth inducing (see related comments) but does not evaluate those impacts or locate urban development wisely as the growth it induces furthers dependence upon delta water supply exports which is in direct contradiction to this 23 CCR Section 5010 requirement.
G-3, line 24 - The BDCP facilities and tunnel muck disposal sites do not respect local land use (see related comments) as it results in a permanent conversion and loss of prime farmland and Williamson Act Farmlands which is in direct contradiction to this 23 CCR Section 5011 requirement.
G-3, line 26 - The BDCP disrupts the prioritization of levees and risk reduction by altering the state's reliance upon sound levees in the delta (see related and previously submitted comments) which is in direct contradiction to this 23 CCR Section 5012 requirement.
G-3, line 28 - The BDCP does not protect floodways as the facilities encroach upon the channel cross sections which reduce flow capacity, engages in habitat restoration and vegetation plans within floodways which reduce flood capacity and redirects flood risk with impairments to levee structural integrity and structures that would redirect flows to new areas in the event of a flood (see related comments) which is in direct contradiction to this 23 CCR Section 5015 requirement.
G-3, line 30 "CEQA requires (see CEQA Guidelines Section 15125(d)) that a "...EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The BDCP construction footprint and restoration plans physically overlap and conflict with on-going HCPs and general plans of San Joaquin County, Yolo County and Solano County - see related and previously submitted comments.
G-4, line 6 "Mitigation is presented to meet CEQA's specific requirement that whenever possible, agency decision makers adopt feasible mitigation available to reduce a project's significant impacts to a less-than-significant level." The BDCP fails to mitigate impacts to a less than significant level when it is feasible to do so. The project could reduce significant (and unavoidable according the BDCP) water quality impacts (e.g. salinity, DO, blue' green algae, Se, Pb, Hg, Chloride, Bromide, etc.) to less-than-significant if they increase upstream releases and bypass more water from the north delta intakes, use the south delta intakes more or exclusively or don't do the project at all.
G-4, line 9, "DWR is preparing a Mitigation, Monitoring and Reporting Program (MMRP) that will be available with the Final EIR/EIS." This is material new information withheld from the public review and comment. These mitigation programs will have their own impacts and consequences to the natural environment and residents and communities of the delta that must be afforded the opportunity to comment on these BDCP proposed, but not as yet developed, mitigation plans. Once this material new information is developed, the BDCP must recirculate the EIR/S for public comment or it will be in violation of NEPA and CEQA requirements to disclose material information for public participation, review and comment.
G-4, line 22 "The EIR/EIS analyzed the impacts of the proposed project using the best available science." The BDCP fails to utilize the best available science in a large number of instances - see related comments here and previously submitted comments. One of the most notable and serious lacks of use of readily available and accepted science is with regards to the lack of analysis of Dissolved Oxygen (DO) impacts of the project - see related comments.

G-4, line 29 "Appendix 3F, Intake Locations Analysis, of the Draft EIR/EIS and the fish screen analysis (Appendix 5B, Entrainment, of the Draft BDCP) identified potential intake locations through an iterative process involving engineers and resource experts most familiar with existing facility operations, river hydrology, and the biological resources in the Delta." The intake locations for the BDCP are not the same locations as are supported in the documents referenced by the BDCP. Not only are the locations different and the rationale for the changes not disclosed or supported, but the new locations are in direct contradiction to the principles of intake site selection documented in those supporting technical reports. As an example, the Fisheries Facilities Technical Team had a principle tenant that the intakes should not be located just before, after or on bends in the river as hydraulic complexity is increased and compliance with approach and sweeping velocity criteria of the screens is unreliable and inconsistent. The current locations of the intakes for the BDCP alternatives have been moved from the locations recommended by the studies and now are located on or just above or just below bends in the river. The Fisheries Facilities Technical Team did represent a best available science approach, but the BDCP then proceeded to ignore this guidance and not even provide any supporting rationale for this deviation in intake site location from the best available science principles.

G.4.3 - See previously submitted comments regarding the failures and deficiencies of the Adaptive Management process and programs proposed by the BDCP.

G-5, line 22 "the design of fish facilities including the intake fish screens" Since the BDCP has proposed to adaptively manage the design of their fish screens, this means that if better designs are developed and accepted in the future, that the BDCP must adaptively redesign and construct their fish screens.

G-6, line 10 "...the DMMs (Demand Management Measures) are not proposed as part of any alternative..." Correct, so the BDCP may not claim this unrelated activity as evidence of the BDCP conformity to the Delta Plan for reduced reliance on delta water supplies. The BDCP must delete this misleading content that implies to the reader that this unrelated effort somehow makes the BDCP compliant with the Delta Plan. The content that does belong in this section and is missing from the EIR/S is that the BDCP does increase reliance upon the delta water supplies by diverting capital and human resources to the planning process for the BDCP - see related comments. The BDCP has expended more planning dollars at over \$250 million than the rest of the state water agencies planning efforts on alternative, supplemental and conservation of water supplies that would actually result in a reduction in their reliance on the delta for their water supplies. By making the delta water supplies more reliable (a purpose of the project that the BDCP fails to accomplish - see related comments) the BDCP is taking away the incentive of water agencies to reduce their water supply reliance upon the delta. Further, the BDCP increases reliance upon the delta for water supplies by increasing the available capacity to support water transfers from northern California to south of the delta water users. The BDCP has failed to disclose this and the additional transfer capacity is in direct conflict with the requirement to reduce dependency upon the delta for water supplies.



- G.4.5 - DWR initiated a process to extend the SWP Water Supply Contracts starting in April 16, 2014. Several public meetings were held involving initial negotiations and culminated in the submittal of public scoping comments ending October 14, 2014. The DWR Contract Extension Project website says "An environmental review process, under the California Environmental Quality Act, will follow with opportunity for additional public participation. A final CEQA document analyzing possible environmental impacts is expected in early 2015" (<http://www.water.ca.gov/swpao/watercontractextension/>) Since the scoping comments were submitted in October 2014, there have been no actions, updates or public meetings on this DWR water contract project even though the website says a final EIR is anticipated in early 2015. No action is more fundamental to water contracting than the renewal of the water supply delivery contracts themselves. DWR has shut the public out of the process and has not given any updates on the status of the contract extensions even though published timelines for the project have passed. This water supply contract extension is definitely not a transparent process for the public as required by the Delta Plan and therefore, DWR, and the BDCP project which is dependent upon these contract renewals to establish any justification for water supply deliveries of the SWP extending beyond 2037 are not compliant with the Delta Plan. Further, the BDCP project would create available capacity for water transfers which is not disclosed, and therefore not transparent, in the EIR/S - see related and previously submitted comments.
- G.4.6 - The Delta Reform Act requires the SWRCB to update and revise the delta flow standards and these revised flow standards were to be utilized to inform the BDCP process and alternatives development. To date, the SWRCB has failed to comply the Delta Reform Act with the issuance of updated flow standards for the Delta. The SWRCB must issue the revised Delta flow standards and the BDCP must develop alternatives which are compliant with these standards. The BDCP cannot be in compliance with this aspect of the Delta Plan because the proposed project and alternatives are being evaluated against a set of criteria which are statutorily obsolete. Once the SWRCB has issued the revised delta flow standards in conformity with the requirements of the Delta Reform Act, then and only then, can it be determined if the BDCP is compliant with this aspect of the Delta Plan or not.
- G.4.7 - The BDCP EIR/S does not refer to the Delta Plan regulation's Appendix 4 elevation restoration map as a guide nor does it provide any supporting analysis of its compliance. The BDCP does not include any site specific restoration plans with earthmoving and land contour plans so it cannot be determined at this time with the information available if the BDCP plan will be compliant with this requirement or not. The BDCP does have available to it LIDAR based elevation data for the entire delta that is accurate in elevation to just several centimeters. This data collection was funded by DWR so they were aware of and had access to this data which could have been used to demonstrate habitat restoration compliance with this Delta Plan requirement. In the absence of supporting site specific restoration plans by the BDCP that demonstrate compliance, the Delta Stewardship Council must assume that the plans are not compliant and therefore are not consistent with the Delta Plan and does not merit certification of compliance.
- G.4.8 - The implementation of the BDCP proposed project and other project alternatives conveyance facilities and operations precludes the opportunity to implement habitat restorations due to conflicts created in water quality impacts - see related comments from earlier on this appendix, related comments in this submittal and previously submitted comments. This is perhaps the worst conflict of the BDCP with the co-equal objectives of the delta plan. Not only does the BDCP no longer contribute at all to the accomplishment of the goal to restore habitat and protect ecosystems, but it actively precludes it.

G.4.9 - The BDCP increases the habitat and transport of potential invasive and nonnative species. The tunnels and habitat mitigations of the BDCP increase the amount of area and opportunity for the colonization of invasive species. The BDCP has not proposed any sanitation practices of equipment, e.g. weed seeds, mollusks, etc. on equipment utilized on land or in water from construction site to construction site - see related comments. The BDCP equipment lacking in sanitation procedures as they currently are, are a significant vector for transporting and propagating invasive species. As an example, there is earthwork and other land modification work proposed in the Yolo Bypass which is thoroughly colonized by Star Thistle, an exotic and invasive weed species. BDCP has proposed no sanitation procedure to prevent Star Thistle and other invasive weed species from being transported to the next BDCP worksite, perhaps to the Glanville Tract construction areas which have low rates of Star Thistle colonization. Similar, but even more significant risks occur with the lack of sanitation protocol for in-water equipment that can transport invasive mussel or clam species from site to site. Another serious invasive species vector risk undisclosed by the BDCP is the transport of floating juvenile specimens of invasive mussels or clams from the north delta intakes through the tunnels directly to the south delta at the discharge in Clifton Court Forebay. The BDCP conveyance tunnels and canals create an express lane for invasive species vector movement from the north delta to the south delta in a form and magnitude of risk that will not exist without the BDCP. Once the tunnels are colonized by these species, a contingency the BDCP has not disclosed any plans to manage, the population would introduce a huge colonization pressure from their free floating progeny to the south delta and the CVP/SWP facilities and conveyance system in the south delta and south of delta. Even if south delta efforts to control the colonization were effective, the constant colonization pressure delivered from the tunnels would predictably eventually overwhelm any south delta management effort applied against it. Dual water operations of water diversions from the north and the south delta effectively double the risks of colonization of these invasive mollusks in the CVP/SWP system south of the delta. Given these significant contributing factors, the BDCP fails to comply with the objectives of the Delta Plan to avoid introductions of invasive nonnative species.

G.4.9.1 - None of the BDCP proposed protective measures, as vaguely and unfunctionally as they are described in the EIR/S, do anything to address control of aquatic mussels and clams. As stated in the previous comment, the BDCP creates new habitat for these invasive species and has two significant modes in which it would result in an accelerated rate of spread of the colonization of these species. The BDCP also fails to describe sanitation plans for equipment as they move from construction site to construction site. In-water equipment can transport invasive aquatic species, e.g. quaga mussel, zebra clam, egeria, hydrilla, Chinese mitten crabs, etc. from site to site without proper sanitation which the BDCP fails to describe or define. The BDCP proposes to use water from dewatering operations for dust control. If the dewatered discharge from the intake impoundments (or the water truck tank) is contaminated with invasive mollusks, the mud that is transported by vehicles from the site will also spread the colonization of these invasive species. Reclamation is a lead agency on the BDCP project and it must have the BDCP adhere to its best adopted standards for practices and procedures regarding the control of spread of invasive species.

G.4.9.2 - The new BDCP alternatives do not include the action described here so these alternatives do not provide any aspect of management or reduction of invasive species to credit towards compliance with this important Delta Plan requirement.

G.4.9.3 - The visual inspection plan is insufficient to reduce or protect the delta from the barge equipment from becoming a significant vector for delivering and spreading invasive aquatic species. First, aquatic weeds can become entangled with equipment and lines in the water as the equipment is being transported. Periodic inspections and even cleaning (not specified by the BDCP protocol) will not reduce the transport of aquatic weeds with the movement of equipment. The in-water construction activities the BDCP plans will physically disrupt (i.e. pull up and chop up) and mobilize invasive aquatic species (e.g. weeds, mussels, clams) and once mobilized will colonize areas that were not colonized without the disturbance of BDCP project. Similarly, the propellers of the tugboats which will push the barges around will mechanically chop invasive weed species which will then become free floating to vegetatively propagate to colonize new areas. Early life stage mussel colonization is not readily visible. Early mussel colonization on surfaces is detected by touch from a sandpaper texture change caused by the mussels that visual inspections as proposed by the BDCP would miss. The BDCP proposed inspection plan does nothing to address these significant contributions by the BDCP to the spread and population levels of invasive species. The barges and other in-water equipment will often be working in water with zero visibility, i.e. disturbed high turbidity water in Snodgrass Slough. The visual inspections proposed by the BDCP will be completely ineffectual in even detecting an infestation on equipment in these conditions. The BDCP protocol does not even call for periodic (weekly) disinfection of hulls of boats and barges utilized in the project. In order for any control effort at mussels or clams colonizing and being spread by this equipment, they must remove the equipment from the water for inspection and sanitization. The BDCP protocol does not include any such control or management measures. Given the significant increase in risks of spread of invasive species and the ineffectual visual inspections proposed by the BDCP, it is certain that the BDCP does not conform to this important Delta Plan requirement.

G.4.9.4 - The new BDCP alternatives do not include the action described here so these alternatives do not provide any aspect of management or reduction of invasive species to credit towards compliance with this important Delta Plan requirement. Given the magnitude of aquatic weed mobilization and colonization from the BDCP construction activities (described in the preceding comment), even if they were adding funding to this existing program it would not mitigate the full extent and impacts of the project and therefore the BDCP project is not compliant with this Delta Plan requirement either.

G.4.10 - The BDCP facilities and tunnel muck disposal sites do not respect local land use (see related comments) as it results in a permanent conversion and loss of prime farmland and Williamson Act Farmlands which is in direct contradiction to this 23 CCR Section 5011 requirement. The BDCP does not protect floodways as the facilities encroach upon the channel cross sections which reduce flow capacity, engages in habitat restoration and vegetation plans within floodways which reduce flood capacity and redirects flood risk with impairments to levee structural integrity and structures that would redirect flows to new areas in the event of a flood (see related comments) which is in direct contradiction to this 23 CCR Section 5015 requirement.

Summary of Delta Plan Requirement Compliance by the BDCP - Of the 24 or so criteria identified by the BDCP for certification of compliance with the Delta Plan, the BDCP complies with exactly none of them. The Delta Stewardship Council must not certify the BDCP as being compliant with the Delta Plan.

G-9, line 38 "If the covered action is found to be inconsistent, the project may not proceed until it is revised so that it is consistent with the Delta Plan." The BDCP is inconsistent with the Delta Plan so the DSC must not certify it and the BDCP alternatives must be modified such that they do comply with the plan.

**Issues Related to Agriculture:**

DR. JEFF MICHAEL, University of the Pacific, "The upfront price tag allocated to farmers is about \$10 billion, so simple division shows about \$160,000 per acre would be the cost. That's multiples above the value of farmland in the San Joaquin Valley – even great almond orchard with reliable water supply doesn't trade for anywhere near that amount." (<http://mavensnotebook.com/2015/08/26/legislative-hearing-are-the-delta-tunnels-good-for-california-part-2-of-2/>) The former UOP Economist is eminently well qualified to make this comment on the BDCP. Now this comment is part of the official project record and this comment must be responded to in a revised EIR/S or in the FEIR/S. The cost of this water is so high that it is uneconomic to use for agricultural irrigation so the real question that is unanswered by the BDCP is, since the water is too expensive to be used for agriculture, who is really going to pay for it, what will the water really be used for and what are the impacts of this other, undisclosed, water use? This water must be used for something other than agriculture as it is too expensive so what is it going to be used for and what is the real impact of the project that the BDCP EIR/S did not disclose or mitigate?

#### **Issues Related to Water Rights:**

The BDCP EIR/S claimed that the water rights impacts did not change from the original draft EIR/S. Based on DWR and Reclamation's petition to the State Water Board for "additional points of diversion" ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf)), this claim of no change to water rights impacts from the original public draft is incorrect and misleading to the reader and decision makers who rely upon this document to accurately portray the project. The diversion locations of the petition are different locations than were previously analyzed and disclosed in the original public draft EIR/S. The diversion locations do not include water rights to implement conservation measures in the Yolo Bypass so the BDCP has predecisionally determined that the alternatives which contain this conservation measure will never be approved by DWR and Reclamation because they are not their preferred alternative.

"...authorization to add three additional points of diversion to the water rights for both the State Water Project (SWP) and Central Valley Project (CVP) is necessary for the construction and operation of new water conveyance facilities that will be part of the SWP and operated in coordination with Reclamation and its operation of the CVP."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 1, p1) This decision by DWR and Reclamation to petition for water rights changes to the SWRCB is predecisional in that the BDCP is not approved yet and the petition only covers the description of the Proposed Project/Action and does not cover all of the other alternatives equally. DWR and Reclamation demonstrate their clear bias in taking these steps before the project is even approved and to take steps that preclude any other outcome in the alternatives analysis other than then single alternative that they want. As a consequence of DWR and Reclamations consistent predecisional and biased behavior (see all previously submitted related comments) with regards to the conductance of what is required to be an unbiased and impartial assessment and disclosure of the environmental impacts of the project, DWR and Reclamation must resign their roles as lead agencies for the BDCP EIR/S. Other state and federal agencies that would be responsible for issuing permits for the project, if approved, are equally well qualified to be lead agencies for the BDCP. For the equally qualified federal lead agencies for the BDCP would include: the EPA, USACE, USFWS, and NOAA or alternatively, the Department of Interior or Department of Commerce. Since Reclamation will not own or operate the facility it has less qualification as lead agency than these other agencies which must rely upon the EIR/S to support their decision making for issuing permits for the project. For the State lead agency, the agencies that have permitting authority and decision support needs on the BDCP EIR could include Department of Fish and Wildlife, State Water Resources Control Board or Caltrans. Cal Fish and

Wildlife would be issuing the 303 and the NCCPA and the SWRCB would be issuing revised water rights and a 401 Certification so both of these state agencies are well qualified and is a better position for state lead agency than DWR that would just own the facility that would be operated by a Joint Powers Authority.

"... State effort to meet the goals of providing for a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem."  
 ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 1, p1) This request is not part of a broader effort for these goals or DWR and Reclamation would have also applied at this time for the water rights changes for additional points of diversion and water consumptive use to support the ecosystem restoration that is part of "California EcoRestore" or for the habitat conservation measures that are part of all of the BDCP alternatives except the Proposed Project/Action and the other new alternative that do not contribute to habitat restoration or species conservation that were introduced in the revised public draft EIR/S. This petition is misleading in that it is not part of the effort for "protecting, restoring and enhancing the Delta Ecosystem". This petition must be retracted to remove these misrepresentations of the project and the purpose of the petition. The petition should not be submitted until the final EIR/S has been certified and a NOD and ROD issued. If a petition is submitted prior to the final EIR/S, then it must be a broad enough request to encompass all of the project alternatives otherwise the request is predecisional on the outcome of the EIR/S.

"The actions proposed by DWR and Reclamation in this petition would facilitate fundamental, systemic change to the current system, putting the State on a course to "[a]chieve the two coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf)) The stated Purpose and Need and Project Objectives of the BDCP is to achieve these two co-equal goals, not to achieve one of them at the expense of the other which is the current BDCP plan has proposed by implementing the water conveyance project first and then discovering later when the habitat restoration project creates unacceptable environmental impacts with the already implemented BDCP conveyance.

(California Public Resources Code Section 29702, subd. [a])."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 2, p1) First, what DWR and Reclamation have proposed in the BDCP is not systemic for the CVP/SWP. The scope of the BDCP project was artificially constrained to be within the statutory delta. To be systemic to the CVP/SWP, the scope would have to include the upstream tributaries and storage to the delta as well as the downstream of delta conveyance and storage. The BDCP has declined to include these other parts of the CVP/SWP in the scope of the project even after repeated requests in the comments in public scoping and in the first public draft EIR/S. This claim in the petition of it being in support of a systemic-wide project is false and purposely misleading to the SWRCB. The petition must be revised to remove this misrepresentation before the SWRCB should give this petition any consideration. More importantly, SWRCB must consider project alternatives that truly are systemic to the CVP/SWP and that include upstream and downstream of delta conveyance, operations and storage alternatives as they consider this petition. As an example, the BDCP must include an alternative that includes repair of the current south of delta delivery conveyance so that 30 - 50% of the water diverted from the delta is not lost to canal leaks prior to delivery. If the CVP/SWP were more efficient in delivering the water it diverted, it would not need to divert nearly as much water from the delta and their operational impacts would be significantly reduced without any need for modification to other parts of the CVP/SWP system. The SWRCB must consider these other less environmentally damaging options to the BDCP prior to any potential

approval of this petition.

"Water would be diverted through one of three new fish-screened intakes located on the east bank of the Sacramento River between Clarksburg and Courtland."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 2, p2) The SWRCB must not issue a change in water right based on this petition as DWR and Reclamation have failed to provide supporting information on the impacts of the proposed change as compared to their existing water rights points of diversion. DWR has water rights for points of diversion at Hood and Clifton Court. DWR has proposed three new diversion locations for their water rights, but they have not provided a comparison of the impacts to fisheries and water quality that compare directly their current right vs. the right they are petitioning for. Specifically, DWR did not quantify the differences of this petition to those conditions that would occur if they were to utilize their current water right point of diversion at Hood. DWR must provide an analysis of this difference in impact that would occur from granting this petition or the SWRCB must conduct their own analysis and disclose it as part of their hearing and consideration process.

"The California Water Fix would result in substantially improved conditions in the Delta for endangered and threatened species..."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 2, p3) This is another false and misleading claim from DWR and Reclamation in this petition. The revised public draft BDCP EIR/S does not conclude that there are substantially improved conditions for endangered and threatened fisheries species resulting from the Proposed Project/Action or any of the other alternatives currently considered. In fact, the PDEIR concluded exactly the opposite, that the project and alternatives resulted in significant and unavoidable impacts to some of the T & E species and that they failed to substantially benefit the species and contribute to overall conservation and protection of the covered species. This claim by DWR and Reclamation from their incomplete and still draft EIR/S document is meant to mislead the SWRCB in their evaluation of this petition. These false and misleading claims must be removed from this petition before the SWRCB should give this petition any consideration and any similar claims in the BDCP EIR/S must be removed. If the SWRCB grants this petition, they will be endorsing a project that results in a degradation beneficial uses of water including, coldwater fisheries, warm water fisheries, agriculture irrigation, municipal water supply, and recreation (contact and non-contact) - see related comments and previously submitted comments.

"...system that allows water managers to shift between intakes to avoid entrainment of at-risk fish species..."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 2, first bullet) This is another misleading statement in the petition. DWR and Reclamation have no means to monitor the presence of and impacts to fish present at the north delta intakes so they cannot "shift between intakes to avoid entrainment". They have demonstrated no means to do what they are claiming here they will do in order to reduce impacts so this claim is false and the benefits to the species will not be realized. The BDCP has not described or evaluated north delta or dual water operations that include this intake switching. This claim must not be included in considerations for justification for issuing the permit. These false claims must be removed before the SWRCB should consider this petition and any similar claims in the BDCP EIR/S must be removed.

"Siting of new diversions in areas outside of the primary habitat for Delta Smelt and Longfin Smelt"

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, first bullet) This is another false and misleading claim in the petition. The north delta intake locations are in designated critical habitat for both of these species

and both of these species have been documented to occur consistently in these reaches and above and below these reaches proving that these species utilize this habitat and transit through this habitat and would therefore be exposed to these intakes. There is no such thing as "primary" designated habitat so this claim in the petition is clearly intended to deceive the board with a made up designation and a claimed benefit of avoidance that is patently untrue. Any similar claims in the BDCP EIR/S must be removed.

"Integration of state-of-the-art fish screens at each intake to minimize entrainment"  
([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, second bullet) This claim is also untrue. The BDCP has not proposed to modify the existing south delta intakes to state of the art screens even though these were repeatedly suggested at public scoping and in draft EIR/S comments - see related comments. The Proposed Project/Action and most of the project alternatives are dual conveyance operations which would have the south delta intakes still operational and not "each modified to state of the art screens" as the petition claims. These false and misleading claims in the petition must be removed before the SWRCB can consider the petition and DWR and Reclamation must fully evaluate an alternative that includes implementing state of the art fish screens at the south delta intakes. Any similar claims in the BDCP EIR/S must be removed.

"Upgrading the SWP/CVP water conveyance system in a manner that improves the ability to capture water during wet years and store it for use during dry years"  
([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, third bullet) The same could be said of building additional upstream or downstream of delta storage which the BDCP has repeatedly rejected consideration of even with this being recommended in public scoping and previously submitted comments. The SWRCB must consider an alternative for upstream and downstream storage in their evaluation of the merits and impacts to beneficial uses of water in consideration of this water right petition.

"Protecting against water supply disruptions associated with catastrophic system failures caused by earthquakes..."  
([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, fourth bullet) This is another misleading claim in the petition. The Proposed Project/Action and alternatives do not "protect" the water supply system from earthquakes. The project may reduce some sources of risk to the water conveyance system, while it creates new risks (vulnerability to levee failures in other parts of the delta, e.g. Merritt Island, RD999, and new vulnerabilities of tunnel failures) and while ignoring other water system vulnerabilities such as the aqueduct which is in much closer proximity to seismically active faults (see previously submitted related comments). At the very least, this claim must be reworded to reflect that the project may have reduced and shifted some types of risks while creating new risks before this claim should be given any credit by the SWRCB as a partial justification for the consideration of the petition. Any similar claims in the BDCP EIR/S must be removed.

"Protecting against water supply disruptions associated with sea level rise caused by climate change"  
Same comment as above, the project does not protect from this risk, it just reduces some sources of risk in exchange for other sources of risk. An alternative not considered by the BDCP, but should be considered by the SWRCB, is the construction of upstream and downstream of delta water storage which would provide more protection from sea level rise than the BDCP proposed project and would have lower environmental and water quality/beneficial uses of water impacts than the petitioned project. Any similar claims in the BDCP EIR/S must be removed.

"Based on the foregoing benefits, the implementation of the California Water Fix would represent an important step forward in efforts to resolve the longstanding conflicts within the Delta."  
 ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, p2) In our preceding comments we have demonstrated that all but one of the claims of benefits of the project are either false, misleading or overstated. The SWRCB must not grant this petition based on such scant actual benefits in light of the previously identified incomplete analysis, lack of analysis against the actual current water rights and lack of consideration of other alternatives which would accomplish the same stated goals but with demonstrably lower impacts and greater benefits to beneficial uses of water. Any similar claims in the BDCP EIR/S must be removed.

"DWR and Reclamation look forward to providing additional documentation to support this petition..."  
 ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 3, p3) Additional information must be provided (see prior comments) in order for adequately complete and comprehensive information to be available to consider this petition. Additional information required prior to conservation of this petition should include, but necessarily be limited to: a complete and certified EIR/S document, full consideration of other alternatives that equally or better meet the benefits claimed in the petition, consideration of alternatives that better protect all beneficial uses of water, and full and direct comparison of the impacts of DWR and Reclamation exercising their current water rights (locations of points of diversion vs. proposed points of diversion) as is as compared to what they are proposing.

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 4) We disagree with the stated purpose of use. The proposed change in diversion location will result in a stream flow reduction in the reaches downstream of the new diversion locations all the way to the south delta where the water is currently diverted, not an enhancement as claimed in the petition. The proposed change in diversion location will result in a reduction of salinity control in the reaches downstream of the new diversion locations all the way to the south delta where the water is currently diverted, not an enhancement as claimed in the petition. The proposed change in diversion location will result in additional energy consumption by the project, not an enhancement as claimed in the petition. Each of these purposes of use result in degradation of beneficial uses of water if the petition is granted. The SWRCB must not violate the Central Valley Regional Water Quality Plan by approving this petition and degrading beneficial uses of water.

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 5) The petition should have disclosed that the proposed project would result in a significant increase in discharge waste water from their project. The project will operate, during construction as well as continued operations, a number of dewatering wells. These discharge waters will require treatment to meet clean water act water quality standards prior to discharge to waters of the US. The lack of this information in the petition is a material deficiency and the SWRCB should reject this petition from further consideration until this information is provided in a quantitative form (quantity of water and quality of water (before and after treatment) as well as locations of discharges and timing of discharges).

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 5) General Information on the form indicates that DWR has ownership of the proposed points of diversion. This is an incorrect assertion in the petition as the points of diversion proposed by DWR and Reclamation are privately owned. This is materially misleading information in the petition as public condemnation proceedings will be required and would be included in the implications of any potential approval of this petition by the SWRCB. The fact that there is no box on the form indicating that the proposed point of diversion is privately owned and planned to be publicly condemned indicates that DWR and Reclamation's petition is premature and



should not be resubmitted until they do have ownership or written agreements in place for the proposed diversion locations.

"Before the State Water Resources Control Board (State Water Board) can approve a petition, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA)."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 6) The BDCP EIR is not CEQA compliant as it is only in a public draft form and has not been certified with a Record of Decision. Until it is a certified document by the state lead agency (and all of the CEQA deficiencies of the current draft EIR have been corrected), the document is not CEQA compliant and must not be utilized in consideration of this petition.

"If a CEQA document has not yet been prepared, a determination must be made of who is responsible for its preparation."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 6) A CEQA document has not yet been prepared and the current public draft EIR does not contain sufficient information to specifically support the consideration of this petition. As previously commented, the EIR does not contain a direct comparison of the project being implemented under the current water rights and does not have a specific section dedicated to the analysis of beneficial uses of water that are affected by the project and by this petition for the changes in points of use. Further, this petition only supports the current Proposed Project (different now from the first public draft) and specifically does not support the other alternatives in the EIR that would also require other changes in location of points of diversion as well as other uses of water that are not covered under the current DWR and Reclamation water right, e.g. consumptive use of water in the Yolo Bypass for wildlife habitat creation. Since the current BDCP EIR/S draft is deficient to support the SWRCB's evaluation of this petition, the SWRCB should consider hiring an independent contractor to create a CEQA document that is specifically developed to meet SWRCB decision support needs in consideration of this petition as well as the 401 Certification.

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 6) The SWRCB must not accept draft documents to rely upon for permitting decisions. The petition is only for alternative 4A, but the EIR is not final so the petition is predecisional by DWR and Reclamation and if the SWRCB were to grant the petition based on this draft document, it too would be guilty of being predecisional.

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 7) The construction and operation of the proposed project will require new wastewater discharge permits as there will be dewatering activities in new locations with new points of discharge and water treatment facilities required for these discharges to meet clean water act water quality requirements.

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 10, p1) DWR and Reclamation have stated a number of times (although the information in the Public Draft EIR/S is inconsistent with this) that Reclamation will not own or operate the proposed facilities and DWR may only be wheeling water for Reclamation. It would seem, given the difference in nature of DWR and Reclamation's roles in the project and the implications to the petition, that their petitions must be distinct and separate and the analysis of these water rights changes addressed in the BDCP EIR/S.

"It proposes only to add points of diversion and redirection within the Sacramento/San Joaquin Delta Estuary (Delta) of the permits listed above. This Petition does not propose to change any other aspect of the existing SWP/CVP permits."

([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/d](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/d)

ocs/ca\_waterfix\_petition.pdf, page 10, p1) Then this petition does not cover any of the other new water discharge locations required for dewatering and other construction and operations-related activities nor does it cover any habitat restoration or mitigation water diversions or consumptive uses of water in new locations and for new purposes.

"The legislature further finds and declares that the basic goals of the state for the Delta are the following: (a) Achieve the two coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. – Delta Protection Act of 1992" ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 11, p4) As discussed in other submitted comments here, the BDCP proposed project and other new alternatives do not "protect", "enhance" or "restore" the delta ecosystem. The proposed project only mitigates, partially, significant impacts which it precipitates on the delta environment and species from implementing the BDCP project. Some of the impacts on these species and designated critical habitat are significant and unavoidable and therefore are unmitigated impacts of the project. Less than significant impacts, although detrimental to the environment and species, are not mitigated by the project. If you consider that the significant impacts are not fully mitigated to levels that have no adverse impact and that the less than significant impacts are not mitigated at all, you can see that the projects claim that it still (without the HCP) achieves the co-equal goal of protecting and restoring and enhancing the Delta Ecosystem is false and purposefully misleading to the agencies that would rely upon the EIR/S as a decision support document. The project does nothing to contribute to protecting, restoring and conserving species and habitat beyond the bare minimum mitigation allowed by law (and perhaps not even that as there is insufficient information in the EIR/S document to make that determination). Other current BDCP project alternatives have less impacts, e.g. the 3000 cfs conveyance, or other proposed alternatives not currently included in the BDCP EIR/S, e.g. Western Delta Intake alternative, than the Proposed Project represented in the water rights petition. Other alternatives other than the new ones in the revised public draft EIR/S do include contributions to habitat restoration and species conservation so only these alternatives would represent DWR's water rights petition claim truly. The Proposed Project/Action in the petition is not consistent with the Delta Protection Act of 1992. The rest of the petitions references to the act only focus on the water supply aspects of the act and omit the other, co-equal requirement for habitat restoration and species conservation.

"...DWR and USBR should continue their efforts to develop alternative water conveyance and storage facilities in the Delta, and should evaluate these alternatives and their feasibility and take action as necessary to minimize impacts to fish." ([http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/california\\_waterfix/docs/ca\\_waterfix\\_petition.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/docs/ca_waterfix_petition.pdf), page 13, p2) The BDCP failed to consider storage as the SWRCB suggested and eliminated from consideration alternatives which would have minimized project affects to fish, e.g. south delta intake criteria fish screens and western delta intake locations just to name 2 of many.

#### **Issues Related to Water Quality:**

CRAIG WILSON, former SWRCB Delta water master, "One of the main points to make about that is that most of the benefits and pros of the tunnels accrue to the exporters to the south and don't accrue to other parts of the state, the Delta and others. There's no question that by building an isolated facility to the north and having the ability to send good quality Sacramento River water directly to the export pumps, there will be better water quality for the exporters, but not for the Delta, because as you take that water out of the system, it means the Delta has less water in it." (<http://mavensnotebook.com/2015/08/26/legislative-hearing-are-the-delta-tunnels-good-for->

california-part-2-of-2/) The former Delta Water Master for the SWRCB is eminently well qualified to make this comment on the BDCP. Now this comment is part of the project record and this comment must be responded to in a revised EIR/S or in the FEIR/S. The improvement in export water quality and degradation of delta water quality is shown on some graphs in an appendix buried deep at the back of the RPDEIR/S document. The main body of the analysis fails to disclose, discuss, provide impact calls for or propose actions to avoid, minimize or mitigate this significant water quality impact.

#### **Issues Related to Water Supply and Surface Water:**

CRAIG WILSON, former SWRCB Delta water master, "There's reliability for the export water by having this isolated facility, but there's no reliability for the Delta, for either the fisheries protection or the agricultural community," he said. "In fact, if there is some type of levee failure or catastrophic event, there will probably be less incentive on the part of a lot of people to jump in and try and fix that immediately since there's this isolated facility that protects the export water."

(<http://mavensnotebook.com/2015/08/26/legislative-hearing-are-the-delta-tunnels-good-for-california-part-2-of-2/>) The former Delta Water Master for the SWRCB is eminently well qualified to make this comment on the BDCP. Now this comment is part of the official project record and this comment must be responded to in a revised EIR/S or in the FEIR/S. This reduction in the potential public will and motivation to provide funding and resources to protect and restore the levees in the delta is a real impact of the project that the BDCP EIR/S did not disclose or mitigate - see related previous comments.

#### **Issues Related to List of Preparers:**

Section 6 - List of Preparers - There is not a single person identified in the list of preparers from the BDCP EIR/S prime contractor, HDR Engineering. From the list, there has obviously been a shift in control and execution of the preparation of the BDCP EIR/S from the originally selected consultant to the BDCP HCP contract team. This change in the contractor responsible for developing the EIR/S was done without following the federal contracting guidelines that would require federal agency representatives to participate in the selection of the consultant. The federal agencies were not part of the process to select the BDCP HCP consultant and they were not part of the process for the HCP contractor to take over preparation of the EIR/S. The BDCP EIR/S has been prepared by a consultant who has been put in charge of the EIR/S document in a violation of federal contracting standards.

Section 6 - List of Preparers - Out of the list of Consultant Team preparers, only members from AECOM, RBI and CH2MHill were part of the HDR Engineering consultant team that were selected to prepare the BDCP EIR/S. All other preparers, about 3/4 of those identified, are from firms that were not part of the team selected by the federal lead agencies to prepare the document. Since these other, non-selected, firms were not part of the contracting and interview process to select the BDCP EIR/S consultant team that the federal agencies participated in, all sections of the document prepared by the non-selected consultants must be disregarded in the decision-making process by the federal agencies and must be re-prepared by authorized contractors that were selected in conformance with federal contracting standards.

Section 6 - List of Preparers - The Section 6 document, [http://baydeltaconservationplan.com/RDEIRS/6\\_LoP.pdf](http://baydeltaconservationplan.com/RDEIRS/6_LoP.pdf), was downloaded from the BDCP website was supposed to provide red-line-strike-out versions, but this section was not. The red-line-strike-out version must be posted as so that the public can easily see how much the source of the authorship has changed since the original public draft BDCP EIR/S. This is especially important for the principle authors for each section as it appears that very few of the principle authors from the first PDEIR/S have

even been recognized as contributing authors in the revised PDEIR/S. The lead and responsible agencies must explain and justify this drastic turnover in lead authorship of the document. It is of great concern that the original consultant team may have been replaced because the project advocates did not like the outcome of the science in the first public draft and that original team was replaced with another, unselected set of consultants, that were more amenable to conducting an outcome driven process and document. This outcome driven document over an independent and objective science driven process is illustrated in the EIR/S by the fact that the discussions of the project affects on resources often identify impacts that are then ignored in the impact conclusions and rarely is any coherent supporting synthesis provided as rationale for the impact call conclusions. Often discussion of potential impacts is short and unsupported and then a subjective and unsupported impact call is made. A good example of this incomplete discussion of the project affects on a resource and an unsupported subjective conclusion is the treatment that Dissolved Oxygen received in the water quality section.

6.2 - The list of preparers by resource must identify who these principle authors work for. With some difficult and unnecessary cross referencing between the preparer sections, it is becoming obvious that this is a 100% consultant prepared document. What we must learn from the addition of the names of the entities that the authors work for is how much of the document was prepared by people that were not authorized to prepare the document, i.e. how much was prepared by people that were not lead or responsible agencies or by the selected BDCP EIR/S consultant team.

#### **Issues Related to Fisheries:**

Dr. CHRISTINA SWANSON, Natural Resources Defense Council, "...the California Water Fix actually suggests that they could increase compared to what the BDCP was doing, the way the result of this will be further reductions in freshwater flows to the system which cannot be beneficial; they can only be harmful to fish." "In fact, the north Delta is literally the only place in the Delta where we have very many native species remaining," she said. "It's a bit of a refuge; therefore proposals to add a new diversion point into that habitat will in fact be affecting the last refuge region within the Delta that currently supports, albeit low levels of native species. There are virtually no native fish left in the south Delta." "Further reductions in fresh water flows from the project will exacerbate some of the other causes of problems, including invasives which thrive under these low flow conditions, as well as potentially toxics by further reducing the dilution or the assimilative capacity of the Delta, she said. "In fact, many of the analyses of both the BDCP and I'm less familiar with the details on the California Water Fix suggests that overall water quality conditions in the Delta will be degraded by this facility and by its operations." "So this is a pretty good example from my scientific perspective of a project which has missed the mark in regard to identifying what are the real causes of the problems here," she said. "They've come up with a plan which does not address them and therefore it is unlikely to be successful at least in regards to improving conditions for fishes and the ecosystems." (<http://mavensnotebook.com/2015/08/25/legislative-hearing-are-the-delta-tunnels-good-for-california-part-1-of-2/>) Dr Swanson is correct, since the project is proposing to divert more water on average than the No Action/No Project and the quantity of water flows in the delta is a limiting factor to fish habitat quality and fish population health, it is inescapable to conclude that the Proposed Project/Action would have significant adverse impacts to listed fish species and adversely modify their critical designated habitat.

#### **Issues Related to Transportation:**

The overpass on Highway 12 on Bouldin Island to allow access to the BDCP proposed project tunnel muck disposal site on the southern tip of the island is already, as of July 2015, under construction. There is no other purpose for this overpass construction other than to ready infrastructure to facilitate a BDCP project that has not been approved yet. This construction is an unacceptable and illegal commitment of resources on a project that has not yet been approved. Work on this Highway 12 overpass project must cease and desist immediately and the contracting, authorizations and funding of the project must be investigated for legal and policy violations.

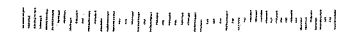


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