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2500	1	The California Delta Chambers and Visitor's Bureau is opposed to diverting the Sacramento River around the Delta. The California Delta is a national treasure and the largest estuary on the West Coast of the Americas since the Colorado River Delta was destroyed by excessive water exports.	The commenter's opinion is noted. No issues were raised related to the adequacy of the environmental analysis in the 2015 RDEIR/SDEIS or 2013 Draft EIR/EIS.
2500	2	John Laird, Mark Cowin, and proponents from the Natural Resources Agency and the Department of Water Resources say the "Water Fix" is about increasing the reliability of the water supply exported but both (depending on their audience) have gone on record as saying exports would increase when the twin tunnels come online. This would be devastating to the Delta and cause salt water to intrude further into the Delta as well as increase the proliferation of invasive plants due to lower water flows. The twin tunnels are not replacing the diversion points in Tracy but are supplemental to them.	Please refer to Master Response 14 for more information on water quality. Additional discussion is included in Section 2.2.1 of the RDEIR/SDEIS, and Chapter 8, Water Quality, and Appendix 8H, Electrical Conductivity, of this Final EIR/EIS. Please also refer to Master Response 3 regarding the purpose and need of the proposed project.
2500	3	We [California Delta Chambers and Visitor's Bureau] see no benefit to any business, resident, or visitors to the region. Construction will take some ten years or more with hundreds of tons of diesel exhaust and soot blanketing the area. The noise will be very disruptive to residents with construction going on day and night. Residents and visitors will be competing with project trucks on narrow Delta roadways, traffic jams will be endemic along with the potential for more traffic accidents.	Regarding benefits, please refer to Master Response 3 regarding the purpose and need, and see the Socioeconomics analysis for Alternative 4A in Section 4 of the RDEIR/SDEIS regarding socioeconomic impacts to the region. It should be noted that the overall traffic volumes would be lower during the hours between 7 PM and 6 AM, but the lead agencies acknowledge that construction truck traffic may impact the local community (businesses, residents, and visitors). Therefore, Mitigation Measure TRANS-2c includes coordination with affected agencies to address impacts of construction truck traffic. The lead agencies acknowledge the importance of Delta roads for business, resident, and visitor transportation. Mitigation Measure TRANS-1c also seeks to work with affected jurisdictions to enhance capacity of congested roadway segments where construction traffic will substantially affect transportation facilities. However, some significant impacts may be unavoidable as discussed on page 19-122 of Final EIR/EIS Chapter 19, Transportation. The proponents are committed to minimizing and remedying the impacts of construction truck traffic. Please see also Chapter 22, Air Quality and Greenhouse Gases, and Chapter 23, Noise for more information on air quality during construction, including mitigation measures specifically designed to address emissions, and impacts and mitigation measures to reduce the impacts of noise during construction.
2500	4	The only groups that will benefit from this mother of all boondoggles will be the consultants working on the plan and the water exporters that have developed a dependency on Delta water. Unless these users develop sources for new water they will continue to demand more exports from the Delta.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Refer to Master Response 3 (Purpose and Need).
2500	5	The tunnels themselves are ill-conceived, boring through local farmlands, Indian burial grounds, and wildlife habitat.	Please see RDEIR/SDEIS Appendix A Chapter 14, Agricultural Resources, Impact AG-1 and Impact AG-2 and their associated mitigation measures for complete analysis of how the proposed project will effect and mediate important farmland in the Delta. For more information regarding archaeology and tribal matters please see Master Responses 20 and 21.
2500	6	The proposed tunnels are to be held together with "gaskets and dowels" a method that will not survive a major earthquake or even land subsidence.	The tunnels would be constructed at a depth that would be below all organic/peat soils, in mineral soils/sediments that are saturated by groundwater. Such conditions are not subject to land subsidence. Regarding the tunnels' ability to withstand seismic ground shaking, as described in Chapter 9, Geology and Siesmicity, Impact GEO-7 in the Final EIR/EIS, the tunnel lining would consist of precast, inter-connected concrete segments. High-performance gaskets between the segments would maintain water tightness at the (bolted) joints, and allowing the joint to rotate and accommodate ground movements during seismic shaking. The precast concrete tunnel lining (PCTL) approach has been used extensively in seismically active

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			locations such as Japan, Puerto Rico, Taiwan, Turkey, Italy, Greece, and Los Angeles, San Diego, Portland and Seattle. A review of the last 20 years of PCTL seismic performance histories indicates that little or no damage to PCTL tunnels was observed for major earthquakes around the world. Case studies of the response of PCTL to large seismic events have shown that PCTL should not experience significant damage from ground acceleration (PGA) of less than 0.5g. The design PGA for a 975-year return period in the Plan Area is 0.49g. Based on this preliminary data, the project tunnels can be designed to withstand the anticipated seismic loads as designed.
2500	7	It appears the Natural Resources Agency pays the PR person promoting the project as much as they pay the deputy secretary for the Bay Delta Conservation Plan charged with guiding the project. The agency has also hired ghost writers to attack local journalists who oppose diverting the river. We [California Delta Chambers and Visitor's Bureau] urge a complete stop to the project until other more practical alternatives are considered. We also urge a complete audit of the Natural Resources Agency. There has been a high degree of secrecy associated with this project and while it appears somewhere between $175 million and $250 million has been expended on the project so far there are consistent rumors that the state's general fund is being tapped into to finance the continuing costs.	The commenter's opinion is noted. Please refer to Master Response 4 for discussion of alternatives development. See Master Response 41 for discussion of transparency. For information regarding funding please refer to Master Response 5.
2501	1	On behalf of the San Joaquin County Hispanic Chamber of Commerce (SJCHCC), I am writing to express our strong opposition to the proposed Delta Tunnels/ California Water Fix (Alternative 4A).	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The commenter's opinion is noted. The comment does not raise any issue related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2501	2	The San Joaquin County economy is directly tied to the Delta as a water source for its major industries including agriculture which has direct impacts to the warehousing, distribution and processing of agricultural products in our region. Metropolitan business will also feel the adverse impacts of the plan as they rely on the Delta and agricultural industry to drive construction, retail and tourism.	Chapter 16 of the EIR/EIS and RDEIR/SDEIS Appendix A (Socioeconomics) identifies the unique features of the Delta and describes the potential effects on Delta communities. Please see chapter 15 for a discussion on impacts to recreation. Impacts to agriculture are identified and discussed in Chapter 14; the lead agencies have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18 for more information on agricultural mitigation and Master Response 24 for information on the Delta As a Place.
2501	3	The Delta tunnels will result in a water supply that will become unusable by most industries and adversely, local utilities (which represent yet another major employment source for residents of the San Joaquin region) will be unable to discharge wastewater in accordance with current Federal law. The outcome will undoubtedly be higher water bills for residents and businesses in one of the most economically challenged regions in the State. Future growth will be stunted by a lack of supply of clean water and the impacts from construction of the 14 month project do not account for adequate mitigation funding to rebuild our communities or agricultural industries. If approved, our region will suffer the most significantly adverse economic and environmental impacts of the project of which the effects will devastate San Joaquin County.	The Delta water supply will not be unusable if the proposed project is constructed. Impact UT-4 in Chapter 20, Public Services and Utilities of the Final EIR/EIS, discusses how impacts on water or wastewater treatment services and facilities as a result of constructing the proposed conveyance facilities would be less than significant. Please refer to Chapter 30, Growth Inducement of the Final EIR/EIS for a discussion of growth in the Delta. As discussed of Chapter 16, Socioeconomics, under Impact ECON-1, of the Final EIR/EIS, construction of the water conveyance facilities would be anticipated to result in a net temporary increase of income and employment in the Delta region. Construction-related employment from the project is estimated to peak at 2,427 FTE jobs in year 3. Total employment (direct, indirect, and induced) would peak in year 12, at 8,673 FTE jobs. Direct agricultural employment would be reduced by an estimated 16 FTE jobs, while total employment (direct, indirect, and induced) associated with agricultural employment would fall by 57 FTE jobs. Throughout the five-county Delta region, population and employment would expand as a result of the construction of water conveyance facilities, as discussed under Impacts ECON-1 and ECON-2. Under

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			Alternative 4A, additional regional employment and income could create net positive effects on the character of Delta communities. Please see Master Response 18 for more information on agricultural mitigation and Master Response 24 for information on the Delta As a Place. Please also refer to Master Response 3 regarding purpose and need and Master Response 5 for BDCP and funding. Chapter 16 in the Final EIR/EIS also provides additional analysis.
2502	1	This letter is Contra Costa County's comments on the Draft Bay Delta Conservation Plan ("BDCP")/California Water Fix ("CWF") and associated partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement ("RDEIR/SDEIS"). As further explained in this letter and its attachments, the RDEIRISDEIS fails to consider a reasonable range of viable project alternatives, fails to model and disclose the full adverse environmental impacts of the project, and assumes away what were previously considered significant adverse, but unavoidable, water quality impacts of the project without any actual detailed water quality modeling being done. The RDEIR/SDEIS is therefore totally inadequate under CEQA and NEPA, and not responsive to state policies (2009 Delta Reform Act), and should be withdrawn. A great deal of information is circulating on the release of the BDCP/California Water Fix and its recirculated environmental documents. The California Water Fix has been portrayed positively and unduly optimistically by the project proponents, but there are a host of major problems with the project. We request your personal review of the issues with the proposed project and urgent consideration of an alternative approach outlined herein.	Please note that the BDCP is no longer the Proposed Project. The Proposed Project is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input following publication of the 2013 Draft EIR/EIS. The Proposed Action includes habitat restoration as necessary to mitigate significant environmental effects and satisfy applicable CWA, ESA and CESA standards. Restoration actions that are independent of Proposed Action, such as EcoRestore, are evaluated as part of the cumulative impact analysis. Please see Master Response 4 concerning alternatives development and Master Response 31 concerning consistency with the Delta Reform Act. It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities
2502	2	The current proposal by the California Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Reclamation) to build new intakes in the north of the Sacramento-San Joaquin Delta (Delta) and export a significant percentage of Delta inflow will be a disaster for the Delta ecosystem, threatened and endangered fish species, the already degraded Delta water quality, and those living in or near the Delta that rely on the Delta for their water supply. The availability of good quality water in the Delta is essential for municipal drinking water for the residents of Contra Costa County as well as agriculture, recreation, and industry in this region.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. Operations for the Proposed Project would still be consistent with the criteria to be set for this project by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board, as described in Chapter 5 of the EIR/EIS. For additional information regarding purpose and need, please see Master Response 3.
2502	3	Contra Costa County asks DWR and Reclamation to undertake a serious review and reconsideration of this deeply flawed RDEIR/SDEIS and work with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) fisheries to develop a new approach (including the ability to capture and store "new" water during periods of high flow) that will actually restore and sustain the Delta ecosystem and address California's water supply needs. This would greatly benefit not only California, but also the nation. The time to consider a Plan "B" is long overdue.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 additional subalternatives were analyzed in the EIR/S and the RDEIR/SDEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4. Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the EIR/EIS.
2502	4	Despite what is stated by the project proponents in their press releases, the current project as proposed by DWR and, apparently, as supported by Reclamation, continues to have serious flaws and will harm, rather than improve the Delta ecosystem. Equally serious, it fails to produce any real increase in water supply reliability for California- something that is	The proposed project would improve water supply reliability by adding operational flexibility to the SWP system needed to reduce potential fish species effects and the restrictions these effects can impose on water supply exports. Please refer to Master Response 2 regarding the purpose and need of the Project. The commenter does not offer any evidence on how the project would result in significant harm to the Delta

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		even more important in view of our current drought emergency.	ecosystem.
2502	5	The following is an example of the major problems with the current BDCP/California Water Fix proposal: The preferred alternative in the current RDEIR/SDEIS fails to achieve either of the two coequal goals of "providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." (See Wat. Code,§§ 85054; 85301(a).) This renders the RDEIR/SDEIS noncompliant with the requirements of the state Sacramento/San Joaquin Delta Reform Act of2009 (Wat. Code,§§ 85000-85350) and Division B, Title 2, Section 205 of the federal Consolidated Appropriations Act of 2012 (Pub. L. 112-7 4 (Dec. 23, 2011) 125 Stat. 786).	As explained in Final EIR/EIS Appendix 3A, the alternative development process for the EIR/EIS was based upon a number of legal considerations including: (1) the legal requirements for adequate discussions of alternatives in an EIR and EIS, as set forth in CEQA and NEPA respectively, and the regulations and case law interpreting those statutory schemes; (2) the concepts of "potential feasibility" under CEQA and "reasonableness" under NEPA; and (3) the requirements of Water Code Section 85320 from the 2009 Delta Reform Act. The results of a multi-level screening process reflecting these considerations were further compared to the requirements of the Delta Reform Act and scoping comments related to the definition of potential EIR/EIS alternatives as identified by responsible and cooperating agencies under CEQA and NEPA, respectively. Finally, the potential alternatives were evaluated to determine if they would require changes in legal rights, including water rights, of entities that are not participants in the proposed project. Please see Chapter 3 of the EIR/EIS and Master Response 4 related to the range of alternatives; and Master Response 31 related to the Delta Reform Act.
2502	6	The following is an example of the major problems with the current BDCP/California Water Fix proposal: The DWR and the California Natural Resource Agency (CNRA) and Reclamation have allowed the export water contractors to develop a flawed project and valuable input from Delta interests and environmental organizations and even other State Agencies (e.g. Delta Stewardship Council Independent Science Board) have gone unanswered. The Delta Independent Science Board's September 30, 2015 letter indicates in no uncertain terms that the BDCP/California Water Fix is "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists and the broader public."	Please refer to Chapter 32 of the Final EIR/EIS and Master Responses 40 and 41 for information regarding outreach conducted for this Project.
2502	7	The following is an example of the major problems with the current BDCP/California Water Fix proposal: DWR, California Natural Resource Agency, Reclamation and U.S. Bureau of the Interior have failed to consider or analyze a reasonable range of alternatives. Fourteen (14) of the 15 alternatives in the draft RDEIR/SDEIS involve an isolated facility and north Delta intakes, with no new storage or actions to reduce demand on the Delta and increase local sources of water. The three new alternatives in the RDEIR/SDEIS have the same basic configuration as those 14, meaning 17 out of 18 project alternatives are essentially the same project alternative. These project alternatives do not foster informed decision-making, and do not permit a reasoned choice.	The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Nor is the Proposed Project intended to solve all environmental challenges facing the Delta. Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint. The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. The water facility and conveyance options proposed as part of the project changed significantly during the planning process in ways that reduce impacts in the Delta communities. The proposed project has been developed based on best available science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. The documentation generated by this Proposed Project has undergone extensive public and scientific input, discussion, and transparency, including the posting of administrative draft chapters online and providing many more opportunities for public participation than is normally required by the CEQA/NEPA processes. Please see Master Response 41 regarding transparency in the public outreach process. Many proposals were not evaluated in detail because they were inconsistent with the project's objectives

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			and purpose and need (see Chapter 2 of the EIR/EIS) or included components that are beyond the scope of the project (e.g., additional storage, as described in Master Response 37). The process of developing alternatives and description of the alternatives are presented in Chapter 3 and Appendix 3A of the EIR/EIS and described in Master Response 4.
2502	8	The following is an example of the major problems with the current BDCP/Caliifornia Water Fix proposal: The current RDEIR/SDEIS preferred alternative still relies on exports from the existing south Delta export locations (especially in dry years when the Delta is most stressed) and often would result in worse reverse flows in Old and Middle Rivers. The new North Delta intakes also adversely impact listed fish species (i.e., species listed as threatened and endangered under the state and federal Endangered Species Acts) by reducing flows through the Delta to San Francisco Bay, reducing the percentage of flow through Sutter and Steamboat Sloughs, and increasing predation. Therefore, the project's net benefits to listed fish species are minimal, if any.	As described in Chapter 3 and Appendix 5A, Section B, of the EIR/EIS, Alternative 4, including the Proposed Project (Alternative 4A), was developed to provide more positive Old and Middle River flows than the No Action Alternative except in April through June. In April through June, the Old and Middle River flow criteria were developed based upon the San Joaquin River inflow. These criteria result in positive Old and Middle River flows in April through June; however, less positive under Alternative 4A than under the No Action Alternative in April and May except in wet years (see Appendix 5A, Section C). The criteria for Old and Middle River flows were developed in coordination with the permitting fish agencies. Potential effects to listed fishes are recognized in the EIR/EIS, with proposed real-time operation adjustments, environmental commitments, and mitigation measures included as necessary to avoid, minimize, or mitigate for negative effects.
2502	9	The following is an example of the major problems with the current BDCP/California Water Fix proposal: Astonishingly, the RDEIR/SDEIS's preferred alternative would increase exports in dry periods and would only infrequently capture additional surplus water in wet periods. This is completely contrary to the original BDCP planning principles and the "Big Gulp, Little Sip" concept touted in the BDCP "An Overview and Update" dated March 2009. Specifically, principle #2 states "Divert more water in the wetter periods and less in the drier periods." Moreover, the preferred alternative is in direct conflict with State policies of reducing reliance on the Delta in meeting California's future water supply needs. (See Wat. Code,§§ 10608(c) & 85021.)	Please see Chapter 5 and Appendix 5A, Section C, of the EIR/EIS, which indicates that the Proposed Project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months especially in drier years; and increase exports in the wet winter months especially in wetter years when the river flows are high. Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. The premise of the California WaterFix is that it will provide environmental benefits while stabilizing water supplies for a large population of California residents, consistent with statutory policy as found in the Delta Reform Act of 2009 (see, e.g., California Public Resources Code, §§ 85001(c), 85002, 85004(a), 85020.) To satisfy the requirements of CEQA and NEPA, an EIR/EIS must include a reasonable range of alternatives that would meet the purpose and need and all or most of the project's objectives (See, e.g., League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service (9th Cir. 2012) 689 F.3d 1060, 1069; Westlands Water Dist. v. U.S. Dep't of Interior (9th Cir.2004) 376 F.3d 853, 868; Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 566; Mount Shasta Bioregional Ecology Center v. County of Siskiyou (2012) 210 Cal.App.4th 184, 196; In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143.). Also see CEQA Guidelines, § 15126.6, subd. (a); 42 U.S.C. § 4332(2)(C)(iii); 40 C.F.R. §§ 1502.14, 1502.13. Please refer to Master Response 4 (Alternatives) for additional information regarding how the alternatives, including the preferred 4A alternative, were developed. The alternatives included in the Draft EIR/EIS, RDEIR/SDEIS, and Final EIR/EIS represent a reasonable range of alternatives. Additional alternatives that were proposed during review of Administrative Drafts of the 2013 Draft BDCP and the EIR/EIS were also considered, as described in Chapter 3 and Appendix 3A of the EIR/EIS. Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the EIR/EIS.
2502	10	The following is an example of the major problems with the current BDCP/California Water	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action

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		Fix proposal: The Operations and Water Quality modeling for the November, 2013 BDCP Draft EIR/EIS contained major errors and the computer models needed to be revised. However, no new modeling was done for the new RDEIR/SDEIS project or project alternatives. Instead DWR and Reclamation have based their RDEIR/SDEIS analyses on the original flawed modeling studies from three and a half years ago, and on water quality sensitivity analyses performed for completely different future demand, climate change scenarios, and habitat restoration conditions, i.e., late-long-term rather than early-long-term.	Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Based on the results of the updated modeling, the water quality impact conclusions presented in the RDEIR/SDEIS were confirmed, as presented in the Final EIR/EIS in Chapter 8. With regard to the analysis of salinity effects, additional sensitivity analyses and other studies were conducted for the Final EIR/EIS and the impact determinations were revisited. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	11	The following is an example of the major problems with the current BDCP/California Water Fix proposal: The estimated $15 billion cost for construction of the tunnels does not represent the total cost of the whole project, estimated upwards of $50 billion, and would most likely be rendered obsolete once the State Water Resources Control Board (SWRCB) adopts long overdue, more-stringent, Delta flow requirements to protect fish and other beneficial uses.	Please see Master Response 5 regarding considerations for funding of implementation.
2502	12	The Bay Delta Conservation Plan/California Water Fix proponents have done very little to develop a holistic and sustainable solution. The Delta is in serious decline and there are major water shortages in California, even in non-drought years. Fish populations are plummeting. DWR and Reclamation should fully embrace the responsibility and complexity of solving the problems of fish decline, degraded Delta water quality, the increasing demands for water in California, and the impacts of climate change. It is unfortunate that due to state and federal budget constraints, this responsibility has been ceded to a special interest group, the export water contractors, who do not have the interests of the environment or the rest of California at heart. Because of the control exerted by the export contractors over the BDCP planning budget, the BDCP/California Water Fix RDEIR/SDEIS was rushed into print without any new modeling, and no new viable project alternatives. This seriously flawed document is not worthy of DWR or Reclamation, and has further delayed addressing the urgent needs of the Delta and California's water supply.	Since 2006, the Proposed Project has been developed based on best available science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. A purpose of the Proposed Project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria the Proposed Project has been developed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 2 for additional information regarding the project objectives and purpose and need for the Proposed Project. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.
2502	13	A sustainable solution to California's Bay-Delta fish and water supply problems can be achieved using the following approach. These are not new ideas. They have been provided by numerous Bay-Delta stakeholders to DWR and Reclamation as part of the BDCP process, and they were addressed in large part in the January 2014 California Water Action Plan. They have mainly been ignored or prematurely rejected by the single-focused BDCP/California Water Fix proponents. 1. Capture water when there is high flow in the Delta and its upstream tributaries. This will require additional storage in or close to the Delta and south of the Delta. Additional storage located north of the Delta is needed, but it will not address the current problems of increasing water availability south of the Delta. 2. Storing captured water in wet periods will reduce the pressure to rely on the Delta for exports in drier periods. This will reduce resistance to adoption by the State Water Resource Control Board and fishery agencies of necessary increased protections for fish in drier periods in the form of increased flows, and more stringent reverse flow limits and export	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. The documentation generated by this Proposed Project has undergone extensive public and scientific input, discussion, and transparency, including the posting of administrative draft chapters online and providing many more opportunities for public participation than is normally required by the CEQA/NEPA processes. Please see Master Response 41 regarding transparency in the public outreach process. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage. Appendix 3A also explains why various proposals were not analyzed in the EIR/EIS, including concepts that include diversion facilities at Sherman Island and intakes near City of Antioch. The process of developing alternatives and description of the alternatives are presented in Chapter 3 and Appendix 3A of the EIR/EIS

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		restrictions. Only after the flows needed to sustain fish species are established will it be possible to determine how much water is available for export by the BDCP/CWF proponents. 3. If increases in Delta exports are focused on periods of high Delta outflow, water quality will be good enough in the western Delta to meet export needs. DWR and Reclamation should analyze alternatives involving new intakes in the western Delta in the vicinity of Sherman Island. Such an alternative would maintain flows for the fish through the Delta and eliminate the problems of reverse flows caused by both the south and north Delta intakes. During high flow periods, key pelagic fish species will be located west of Sherman Island. This alternative will also eliminate the need to construct lengthy expensive tunnels all the way under the Delta. 4. Increasing flows in the Delta during drier months will also help restore and maintain good water quality in the interior Delta. 5. Exports from the south Delta could still continue but only under "safe" conditions for fish. Reverse flows in Old and Middle Rivers would need to be highly constrained, e.g., Old and Middle River flows that are never less than, say, -2,000 cubic feet per second, as a monthly average, in all months. 6. Implement a portfolio of other actions to reduce demand on the Delta, strengthen Delta levees, address other fish stressors, and restore habitat in the Delta and in its upstream tributaries. If done right, this approach will result in a win-win-win solution that achieves both coequal goals and the inherent goals of improving water quality in the Delta and protecting the Delta as an evolving place (see Wat. Code,§ 85020). The current Bay Delta Conservation Plan/California Water Fix maintains the existing "lose-lose" situation that pits water users against the environment and forces the SWRCB to balance rather than enhance beneficial uses. Indeed, it is telling that despite the court decisions upholding the Fall X2 limits, the export contractors still included an analysis of the proposed project without Fall X2 in the RDEIR/SDEIS (Appendix F).	and described in Master Response 4. The range of alternatives evaluated included a range of Delta outflow criteria from no Fall X2 criteria to increased spring outflow criteria as compared to the No Action Alternative. The Proposed Project includes Fall X2 criteria as described in the 2008 USFWS Biological Opinion. There continues to be scientific uncertainty regarding the level of outflow necessary to meet the needs of delta smelt (in fall months) and longfin smelt (in spring months). The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Master Response 28 and Master Response 45 for more information regarding operational scenarios and compliance with ESA respectively.
2502	14	It is unfortunate not to mention tragic for Delta smelt and other declining fish populations that after the expenditure of more than $250 million on planning studies, and after tying up the staff resources of state and federal agencies and interested stakeholders for more than nine years, the BDCP/California Water Fix proponents have failed to produce a viable or legally-permissible solution to the water and ecosystem problems facing California, and have failed to produce a legally adequate environmental document.	Please see Master Response 28 and Master Response 45 for more information regarding operational scenarios and compliance with ESA respectively.
2502	15	Contra Costa County provided extensive and constructive comments on the November 2013 Bay Delta Conservation Plan (BDCP) Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) but the County's comments do not appear to have been thoughtfully considered. None of the County's constructive suggestions were incorporated into the RDEIR/SDEIS. This new environmental document perpetuates the flawed BDCP DEIR/EIS, and another 20 months or more have been wasted - time that the dramatically declining fish populations, and Californians with insufficient water supply don't have.	Comments received on the 2013 Draft EIR/EIS have been considered in the development of the RDEIR/SDEIS and Final EIR/EIS and responses to all comments are provided in this Final EIR/EIS. Please see Master Response 42. The 2015 RDEIR/SDEIS did not include responses to comments on the 2013 DEIR/EIS.
2502	16	Unfortunately, it is clear from the commitment of resources to, and support of, the proposed project, and from the degree of specificity with which the proposed project has	The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a reasonable range of alternatives.

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		already been planned, the lead agencies have predetermined what would be the preferred project before undertaking adequate environmental review. The proposed project was not analyzed under CEQA and NEPA at the earliest possible time. Moreover, the proposed project was not described in such a way that would allow for flexibility to respond to changes arising during environmental review. Instead, the lead agencies' favoring towards the proposed project ripened into commitment to a definitive course of action (i.e., a commitment to the proposed project, without any variation) well before meaningful environmental review was performed; and, consequently, the power to influence key public decisions about the project was lost at the outset. (See, e.g., Save Tara v. City of West Hollywood (2008) 45 Cal.4th 116, 130-131.) What followed was inadequate environmental review and the preparation of a flawed environmental document.	Since 2006, the proposed project has been developed based on best available science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. The documentation generated by this Proposed Project has undergone extensive public and scientific input, discussion, and transparency, including the posting of administrative draft chapters online and providing many more opportunities for public participation than is normally required by the CEQA/NEPA processes. Please see Master Response 41 regarding transparency in the public outreach process. See Chapter 2 of the EIR/EIS and additional storage information, as described in Master Response 37. The process of developing alternatives and description of the alternatives are presented in Chapter 3 and Appendix 3A of the EIR/EIS and described in Master Response 4.
2502	17	The Project Need acknowledges there is an urgent need to improve the conditions for threatened and endangered fish species within the Delta. (ES.1.2.2.3 Project Need, Page ES-6). However, the RDEIR/SDEIS is inadequate because it narrowly confines the Project Need statement to improvements in the conveyance system. As described in detail in the January 2014 California Water Action Plan and the 2009 Delta Reform Act, additional storage and actions to conserve water and reduce demand are also needed "to respond to increased demands upon and risks to water supply reliability, water quality, and the aquatic ecosystem. (Page ES-6).	The California Water Action Plan e five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species -- all amid the uncertainty of drought and climate change. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.
2502	18	The RDEIR/SDEIS is inadequate because the preferred alternative (Alternative 4A) and the other BDCP and Water Fix alternatives are not consistent with the Project Objectives (Executive Summary, Page ES-5) a. The proposed physical and operational improvements would not help to restore and protect ecosystem health, water supplies of the State Water Project (SWP) and Central Valley Project (CVP) south of the Delta, and water quality in the Delta. b. The proposed changes to the operation of existing SWP Delta facilities are not adequate to address the existing adverse effects of the SWP on state and federally listed species. c. The SWP and CVP south Delta intakes would still be used for 50% of exports, and the intake to Clifton Court Forebay would remain unscreened. d. Most of the exports during dry years, when the Delta is most stressed, would be from the southern Delta. e. The lead agencies are assuming the Army Corps of Engineers' limits on inflow to Clifton Court Forebay will no longer apply, and the lead agencies have improperly redefined the SWRCB's export/inflow standards to allow increased exports from the Delta, especially during drier months when the Delta ecosystem is most stressed. The proposed new facilities and operations for diverting water entering the Delta from the Sacramento Valley and conveying it to existing SWP and CVP pumping plants in the southern Delta will harm and impair, rather than improve, conditions for state and federally listed species. To restore and sustain the Delta ecosystem and also improve water supply reliability, it will be necessary to develop new facilities to capture and store water when there are high flows in the Delta (wet months) and convey that water to south-of-Delta groundwater storage. The RDEIR/SDEIS is inadequate because the proposed project does	In response to comments received during the 2013-2014 public comment period, State and Federal agencies decided to change the approach. While Alternative 4 still remains a viable alternative, a modified Proposed Project (Alternative 4A/California WaterFix) is now being considered, and does not involve an HCP component. A purpose of the Proposed Project is to make physical and operational improvements to the SWP and CVP system in the Delta to provide water supplies of the SWP and CVP for users located south of the Delta and Delta water quality consistent with statutory and contractual obligations of the SWP and CVP, as described in Section 2.3 of Chapter 2, Project Objectives and Purpose and Need, of the EIR/S. The Proposed Project could increase Delta exports and reduce Delta outflow during wet and above normal years with the use of the North Delta intakes, as described in Chapter 5, Water Supplies, and Chapter 6, Surface Water. In addition, the Proposed Project could reduce Delta exports and increase Delta outflow during drier years, as described in Chapter 5, Water Supply, of the Final EIR/S. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.

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		not meet any of California's urgent ecosystem and water needs.	
2502	19	The RDEIR/SDEIS states that the NEPA Purpose statement reflects the intent to advance the coequal goals set forth in the Sacramento–San Joaquin Delta Reform Act of 2009 of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem (Page ES-6, Line 21). The RDEIR/SDEIS is inadequate because the project alternatives would hinder rather than advance achievement of the coequal goals. a. Both the unscreened south Delta intakes and the new north Delta intakes on the pathway of migrating anadromous fish would significantly harm key fish species. b. The project proponents have not incorporated increased Delta flow criteria considered by the State Water Resource Control Board and Department of Fish and Wildlife to be necessary to restore and sustain fish populations. c. The project proponents continue to oppose increased flows in the Fall to protect key fish species (i.e., maintaining Fall X2) and they still include alternatives with no Fall X2 (see Appendix F). d. The project would increase exports from the Delta during dry months when outflows are lowest and the Delta ecosystem is most stressed.	Chapter 2, Purpose and Need, of the Final EIR/EIS states that the NEPA purpose is to improve the movement of water entering the Delta from the Sacramento Valley watershed to the existing SWP and CVP pumping plants located in the southern Delta in a manner that minimizes or avoids adverse effects to listed species, supports coordinated operation with the SWP, and is consistent with the Project Objectives, which includes: (1) Restoring and protecting aquatic, riparian and associated terrestrial natural communities and ecosystems of the Delta, and (2) Restoring and protecting the ability of the SWP and CVP to deliver up to full contract amounts of CVP Project water, when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of applicable state and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements. For additional detail on the Project Purpose and Need, please refer to Master Response 3. The Proposed Project, 4A, includes Fall X2. It also includes a CSAMP designed to study the necessity of fall outflow. Overall, the proposed criteria are meant to avoid or minimize operational effects on listed fish species, including the timing and volume of diversions. Proposed diversions at the south and north Delta are coordinated and are based on hydrology, fish presence, and the need to meet water quality and other objectives. Overall, the EIR/EIS concludes that there are no significant impacts on listed fish. Overall, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months especially in drier years; and increase exports in the wet winter months especially in wetter years when the river flows are high. As shown in Appendix 5A, Section C, of the EIR/EIS, south Delta exports are reduced in all months and in all water year types. Total Delta exports to SWP and CVP are similar or less in drier years as compared to both the Existing Conditions and No Action Alternative. As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights.
2502	20	The unseemly rush to "get stuff done," and the export contractors' mandate to remain within the BDCP $250 million planning budget, meant that no detailed modeling was done of the new alternatives before the RDEIR/SDEIS was released. The RDEIR/SDEIS is woefully inadequate under CEQA and NEPA because the preferred alternative and other new alternatives were not actually modeled. In other words, there was no objective analysis of project alternatives. This is unacceptable for any project, not to mention a $15 billion project that would likely significantly harm key fish species; and this is not worthy of State agencies tasked with managing California's water and fish resources. a. There are major differences in acreage of habitat restoration and compliance with the Emmaton water quality standard between new alternatives (4A, 2D, and 5A) and the alternatives that were analyzed in the BDCP DEIR/EIS. b. In addition, in response to extensive comments by Contra Costa Water District, the City of	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. The model runs used in the Final EIR/EIS did not include habitat restoration for EcoRestore under Existing Conditions, No Action Alternative, or Alternatives 2D, 4A, or 5A. EcoRestore is not within the project description. The model runs used in the Final EIR/EIS relied upon Emmaton as the location of the D-1641 water quality compliance under Alternatives 2D, 4A, and 5A as well as under the Existing Conditions and the No Action Alternative.

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		Antioch, the North Delta Water Agency and others, the CALSIM II and DSM2 models have been recently corrected and updated to correct problems with the original BDCP Draft EIR/EIS modeling. The lead agencies decided to use the flawed modeling “as is” in the RDEIR/SDEIS (RDEIR/SDEIS Appendix B, page B-3). C. The RDEIR/SDEIS is "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists and the broader public" (Delta Independent Science Board. September 30, 2015 comment letter). D. Even DWR agrees that the "sensitivity analyses" are not full model runs. Minor changes were made to the full model runs performed for the BDCP Public Draft to assess the effects of individual changes to the Emmaton compliance location, the amount of habitat restoration, etc. CALSIM II sensitivity model runs were not rebalanced to address any new or modified effects (as would be done for a full model run) that may be a result of the minor changes. The sensitivity analyses are only valid to assess the impacts of the minor changes. CALSIM II and DSM2 results from the sensitivity runs should only be used to answer the specific questions for which the runs were performed (WaterFix Modeling Data Disclaimer provided to Contra Costa County with the electronic versions of the "sensitivity analysis" data). E. The Alternative 4 CALSIM II models from BDCP Draft EIR/EIS were used, as is, for the Alternative 4A sensitivity analysis, without including any recent updates to the CALSIM II since the draft EIR/EIS was completed. The RDEIR/SDEIS states that this was done "to remain consistent with the draft EIR/EIS modeling" (Appendix B, Page B-3, Line 6). Because there were serious problems with the Draft EIR/EIS modeling, the models had to be updated. It is unacceptable to use these flawed analyses for the RDEIR/SDEIS. Relying on these models results in inaccurate estimates of changes in flows, exports and water quality caused by the proposed project and does not provide a reasoned analysis of environmental impacts.	With respect to the decision to continue to analyze the action alternatives using the 2010 CALSIM II model, modeling for the EIR/EIS has been based on the Existing Conditions, No Action Alternative, and Alternative 1 models developed in April – May of 2010 (2010 models), which were the state-of-the-art at the time, and formed the basis for universal assumptions in the other action alternatives in the EIR/EIS. However, in August 2011 several model improvements were identified by the water agencies, fishery agencies, and the modeling community. The identified improvements were compiled, and the Existing Conditions, No Action Alternative, and Alternative 1 models were updated in coordination with DWR, Reclamation and USFWS. This update was performed to verify if the compiled model improvements altered the incremental changes between the BDCP Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A. It should be noted that the modeling used in the EIR/EIS must be used in a comparative manner and not to define absolute values. Please see Master Response 30 related to modeling.
2502	21	The preferred alternative (Alternative 4A) and the other BDCP and WaterFix alternatives would seriously harm key fish species and the Delta ecosystem. The RDEIR/SDEIS is inadequate because it fails to avoid or mitigate these significant adverse impacts to the Bay and Delta ecosystems. a. The unscreened south Delta intakes will continue to be used for 50% of the SWP and CVP exports and the WaterFix project would implement new operations rules that would increase rather than decrease south Delta exports. b. The new north Delta intakes on the pathway of migrating anadromous fish would significantly harm key fish species, as acknowledged in the BDCP Draft EIR/EIS Executive Summary. C. The north Delta intakes will impact flows in Sutter and Steamboat Sloughs reducing survival of key anadromous fish species. D. The elimination of almost all habitat restoration projects in WaterFix means that there will be no ecosystem offset (i.e., no mitigation) for these substantial, adverse impacts on fish. E. The project alternatives are contrary to State and Federal law (Public Law 112-74)	For more information regarding impacts to aquatic resources and its mitigation measures please see Chapter 11 of the EIR/EIS. For additional detail on how alternatives were chosen, please see Master Response 4.

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		because they fail to contribute to achievement of both of the coequal goals.	
2502	22	The RDEIR/SDEIS is inadequate because the preferred alternative (Alternative 4A) and the other BDCP and Water Fix alternatives would not result in any significant increase in water supply to exports areas. This therefore fails to meet the project purpose and fails to help achieve the coequal goal of improving water supply reliability for California (2009 Delta Reform Act).	The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS and Master Response 3. The specific proposals that were considered but not evaluated in detail by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A explains why various proposals were not analyzed in the EIR/EIS. The EIR/EIS was prepared to comply with the 2009 Delta Reform Act, as described in Appendix 3I of the EIR/EIS. For more information regarding the Proposed Project compliance with the Delta Reform Act please see Master Response 31.
2502	23	The RDEIR/SDEIS is inadequate because the preferred alternative (Alternative 4A) and the other BDCP and WaterFix alternatives fail to analyze and disclose the potentially significant adverse impacts on water quality in the Delta. The RDEIR/SDEIS is inadequate because: the water quality changes due to the preferred alternative have not been modeled using full DSM2 runs; the sensitivity analyses are not the same as actual model runs; and any conclusions about water quality impacts in the RDEIR/SDEIS are, therefore, purely speculative. a. The BDCP Draft EIR/EIS showed significant adverse water quality impacts throughout the Delta that were described by the BDCP proponents as unavoidable. b. The RDEIR/SDEIS now attempts to demonstrate through sleight of hand (but no actual modeling) that the new project proposal will not result in any water quality impacts. c. The failure to do actual water quality model runs means that the RDEIR/SDEIS relies on speculative language that is not based on fact, or good science. With respect to Barker Slough, the RDEIR/SDEIS states: "Because new alternatives 4A, 2D, and 5A contain a lower acreage of tidal restoration, significant impacts with regard to bromide are not expected under these alternatives (Page ES-28, Line 19). With respect to Suisun Marsh water quality, the RDEIR/SDEIS states: "the results of sensitivity analyses performed indicate that chloride increases in Suisun Marsh predicted via the modeling would not occur, .. For these reasons, any changes in chloride in Suisun Marsh are expected to have no adverse effect on marsh beneficial uses." d. Fostering further degradation of Delta water quality is poor public policy and contrary to the statutory requirements of the 2009 Delta Reform Act (Cal. Water Code 85020€);	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 related to water quality Modeling and to sensitivity analyses.
2502	24	The BDCP Draft EIR/EIS signaled DWR's intent to shift the compliance point for the State Water Resource Control Board's Emmaton water quality standard from Emmaton to Three Mile Slough. This has been dropped from the RDEIR/SDEIS preferred alternative because it caused significant degradation of water quality in the Delta. This significant adverse impact on Delta water quality is apparently avoidable, despite assertions made in the BDCP Draft EIR/EIS. Because DWR intends to shift the Emmaton compliance point, but after certification of the Final EIR, this represents piecemealing of a project under CEQA (California Code of Regulations, Section 15126). All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation.	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.

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2502	25	The RDEIR/SDEIS does not comply with CEQA because additional storage will be needed to meet the project need of improving CVP and SWP water supply. Increase Delta flows are also needed to restore and sustain the Delta ecosystem. Apparently this will not be addressed by the State Water Resource Control Board until after the SWRCB issues water right and Clean Water Act Section 401 approvals for the WaterFix project. Because both additional storage and increased Delta outflows are necessary to achieve the project goals and comply with the 2009 Delta Reform Act, this also represents piecemealing of the project under CEQA (California Code of Regulations, Section 15126).	A purpose of the Proposed Project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage. Please see Master Responses 8 for more information regarding how the lead agencies analyzed the whole of the project.
2502	26	The RDEIR/SDEIS is inadequate because it fails to analyze a reasonable range of alternatives, as required under CEQA and NEPA, as well as the 2009 Delta Reform Act. The nature and scope of the alternatives analyzed in the RDEIR/SDEIS do not satisfy the "rule of reason" and do not enable the lead agencies to make a "reasoned choice" regarding the project. a. Fourteen (14) of the 15 alternatives in the BDCP Draft EIR/EIS were essentially the same alternative (an isolated facility and north Delta intakes). The three new alternatives in the RDEIR/SDEIS have the same basic infrastructure as the original 14. Only BDCP Draft EIR/EIS Alternative 9, through-Delta conveyance only, is different from the others. None contributes to achievement of the coequal goals. B. Previous commenters on the BDCP have suggested alternatives that incorporate a portfolio of actions, such as water conservation, desalination, and local water supply reliability to reduce demand for water from the Delta. Commenters have also suggested adding new storage to allow water to be captured during periods of high flow into the Delta and through into San Francisco Bay, as well as alternative locations for the new intakes, such as the western Delta at Sherman Island. Commenters and the SWRCB have also requested alternatives that include significant increases in Delta outflows, but these were not taken seriously by the WaterFix lead agencies. Therefore, the lead agencies have failed to comply with CEQA by failing to provide a good faith, reasoned analysis of comments and suggested project alternatives. Moreover, although commenters have proposed alternatives that would reduce significant environmental impacts and achieve most project objectives, the lead agencies have excluded those suggestions from the alternatives analysis, thereby violating CEQA. C. No actions to reduce reliance on the Delta, such as regional supplies, conservation or water use efficiency, are considered. (2009 Delta Reform Act, Cal. Water Code Section 80521); d. No screening of the Clifton Court Forebay even though screening of other Delta diversions is proposed as a conservation measure, and the Conceptual Engineering Report for a through-Delta alternative shows that constructing a screened intake off Victoria Canal is indeed feasible.	Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. Please refer to Appendix 3A in the EIR/EIS and Master Response 4 for additional details on the selection of alternatives (including a discussion of why the Portfolio-Based Proposal was not analyzed in the EIR/EIS). Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage. The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS.
2502	27	The analysis of water quality impacts in the BDCP Draft EIR/EIS used computer models that contained significant errors. These models have since been updated. The analysis for the RDEIR/SDEIS was based only on "sensitivity analyses" which DWR acknowledges are not actual model runs. The RDEIR/SDEIS is woefully inadequate because it: a. Fails to accurately model and disclose the magnitude of adverse Delta water quality	The EIR/EIS analysis is based upon comparison of conditions under the Proposed Project and other action alternatives to conditions under the Existing Conditions and the No Action Alternative. The basis of the hydrologic and water quality models is the CALSIM II model, a monthly model that incorporates assumptions about daily operational changes. Please see the response to Comment 2502-20 with respect to continued use of the 2010 CALSIM II model to

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		impacts; b. Fails to disclose adverse water quality impacts that would occur in subsequent months once the BDCP modeling errors were corrected; c. Fails to meet required State Water Resource Control Board standards such as the Rock Slough chloride standards, even in the base cases (i.e., without BDCP); d. Fails to apply consistent flow inputs to the water quality models. The use of daily variations in Sacramento River inflows to the Delta but monthly variations in Delta exports in the BDCP modeling studies caused large unrealistic spikes in water quality that distort the impact analyses. It is reasonably feasible to evaluate the true environmental impacts of the proposed project using accurate modeling; the lead agencies just choose not to do that. And the lead agencies have failed to provide a reasoned basis for not analyzing these impacts.	conduct the hydrologic analyses. Please refer to Master Response 14 regarding modeling and sensitivity analyses conducted to support the water quality assessment in Chapter 8 of the EIR/EIS.
2502	28	The analysis of environmental impacts in the RDEIR/SDEIS includes a number of significant changes to existing facilities and existing Delta operation standards (e.g., State Water Resources Control Board Water Rights Decision 1641 ("D-1641")). The RDEIR/SDEIS is inadequate because it hides and fails to disclose the individual adverse impacts of each individual change. These changes are: a. Adding new diversion intakes in the north Delta on the Sacramento River; b. Adding a permanent operable flow barrier at the Head of Old River; c. Eliminating or ignoring the existing U.S. Army Corps limits of the inflow from the south Delta into Clifton Court Forebay; d. Relaxing the SWRCB's D-1641 export/inflow standards to allow increased exports; e. Ignoring the current biological opinion limits on the ratio of San Joaquin inflow to south Delta exports.	The lead agencies believe that the EIR/EIS are complete in their evaluation of impacts, direct and cumulative, that project description is complete and satisfies the requirements of NEPA, that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies agree that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS, including new diversions in the north Delta and the permanent operable barrier at the Head of Old River. Under the Proposed Project (Alternative 4A), export of up to 10,300 cfs of SWP water in the wetter months is based upon conveyance through the Banks Pumping Plant of water diverted at the north and south Delta intakes. The Proposed Project would maintain the same limitations for diversions from the south Delta into Clifton Court Forebay as under the Existing Conditions and No Action Alternative. The Proposed Project and other action alternatives are consistent with the State Water Resources Control Board Decision 1641 requirements.
2502	29	The RDEIR/SDEIS assumes new limits on operation of the south Delta export pumps in the fall (September-November) and the spring (March-May), which when combined with existing Delta standards in the spring (February-June X2 limits) will shift the existing impacts of reduced flows and export diversions to July-August. Unless enhanced protections for fish are also set during July and August along with Fall X2 limits in critical, dry and below normal years, the proposed project will put other fish species, not currently listed or in decline, at risk. The RDEIR/SDEIS is inadequate because it fails to protect resident fish species from redirection of adverse impacts to the summer months. a. The WaterFix operations criteria need to include Old and Middle River flow limits for July-September. This is consistent with the original objectives of reducing (not increasing) exports from the south Delta; b. The BDCP operational criteria needs to have Fall X2 limits for critical, dry and below normal years, as well as corresponding Delta outflow, X2 and Rio Vista flow requirements for July-August; c. The proposed WaterFix north Delta intake would need to include more protective limits	As described in Chapter 2 of the EIR/EIS, the project objectives and the purpose and need statement do not address reducing Delta exports as compared to Existing Conditions or No Action Alternative. The proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high to improve conditions for aquatic resources in the Delta. The water would be stored at locations south of the Delta during the high flow periods to allow reductions in deliveries to SWP and CVP water users in drier periods. The Proposed Project included the Fall X2 criteria as included in the 2008 USFWS Biological Opinion. Increased reservoir releases in drier water years to increase fall Delta outflow could reduce the ability of the SWP and CVP to meet future temperature requirements in the Sacramento, Feather, and American rivers. Please see Master Response No. 14 related to water quality. The effects of the Proposed Project on water quality as compared to Existing Conditions and No Action Alternative are presented in Chapter 8 of the EIR/EIS.

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		for July- September to avoid shifting adverse impacts to these three months.	
2502	30	The RDEIR/SDEIS fails to fully analyze alternatives with increased flows as a percentage of unimpaired flow as informed by the State Water Resource Control Board's 2010 Delta Flow Criteria Report and corresponding California Department of Fish and Wildlife (formerly Fish and Game) 2010 Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta Report. The RDEIR/SDEIS is also inadequate because it fails to present modeling study flow results as percentages of unimpaired flow to allow comparison with the SWRCB and DFW recommendations. By not presenting this essential information, the RDEIR/SDEIS hides significant adverse environmental impacts from decision makers, regulators, and the public, in violation of CEQA and NEPA. Once again, it is reasonably feasible to evaluate the true environmental impacts of the proposed project using accurate modeling; the lead agencies just choose not to do that. And the lead agencies have failed to provide a reasoned basis for not analyzing these impacts.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation, including changes in Delta exports related to unimpaired flows. It is recognized that the State Water Resources Control Board is conducting a current program to update the Bay-Delta Water Quality Control Plan which may analyze increased Delta outflow criteria based upon portions of the unimpaired flow in individual tributaries to the Delta. Since this program is still under development and the potential outcomes are not known at this time, this program is not included in the analysis. Following completion of the updated Bay-Delta Water Quality Control Plan, SWP and CVP operations would need to be reviewed to determine if the operations continued to comply with the new regulations. Please see Master Response No. 14 related to water quality and Master Response No. 4 related to Alternatives Analysis. As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights.
2502	31	The RDEIR/SDEIS fails to optimize reservoir operation rule curves to represent realistic reservoir and export operations by the SWP and CVP in response to new conveyance facilities, global climate change and enhanced Delta flow requirements.	Please see Master Response No. 4 related to Alternatives. The comparison between the conditions under the action alternatives and the No Action Alternative indicate the changes caused by the Project, and not by changes in climate change, sea level rise, and population growth that would have occurred with or without the Project. As described in Chapter 5, Water Supply, the EIR/EIS analyses assume continued implementation of reservoir operations criteria due to climate change or other reasons, in accordance with the requirements under the CEQA definition of Existing Conditions and under the NEPA definition of the No Action Alternative. It would be speculative to consider future changes to reservoir operations in the No Action Alternative and Cumulative Impact Analysis. Such changes are not included in the No Action Alternative and action alternatives because they would not support the Project Objectives or Purpose and Need statement (see Chapter 2 of the EIR/EIS). Changes in reservoir operations criteria would only occur following detailed analyses, including project-specific CEQA and NEPA analyses, if appropriate. Following adoption of changes to reservoir operations criteria, DWR and Reclamation would need to determine if changes in the SWP and CVP would be necessary. If such changes were included in the assumptions for the action alternatives and the No Action Alternative, the incremental differences due to implementation of the action alternatives would be similar to the incremental differences presented in the EIR/EIS.
2502	32	Because of these and other WaterFix RDEIR/SDEIS inadequacies, a new Draft EIR/EIS must be prepared that addresses all of these important issues. A broad group of Delta stakeholders must be invited by the California Natural Resources Agency and the U.S. Department of Interior to engage in this process of getting the development of a viable solution to the ecosystem, water quality, levee, groundwater, instream flow, and water supply reliability problems of the Bay- Delta system back on track. The new Draft EIR/EIS	For more information regarding public outreach adequacy please see Master Response 40.

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		must then be released for detailed public review and comment.	
2502	33	All of the alternatives analyzed in the RDEIR/SDEIS are inadequate. A new Draft EIR/EIS must be prepared that analyzes new alternatives incorporating increased Delta flows to restore and sustain fish populations (consistent with the State Water Resources Control Board's (SWRCB) 2010 Delta Flow Criteria), new storage, other potential intake locations, actions to reduce demand for water from the Delta, levee strengthening, and groundwater recharge and management actions. The new Draft EIR/EIS must include actual modeling studies of the alternatives, not brief sensitivity analyses, with water quality analyses for the full period of the operations studies (1922-2003, preferably extended through 2014). The new Draft EIR/EIS should then be released for public review and comment.	Please see Master Response 41 (Transparency), Master Response 4 (Alternative Development), and Master Response 31 (Consistency with Delta Reform Act). A purpose of the Proposed Project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage. The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.
2502	34	Contra Costa County is still very concerned that the alternatives still include elimination of the Army Corps limits on inflow to Clifton Court Forebay, and fail to comply with the Central Valley Project (CVP) and State Water Project (SWP) biological opinion limits on the San Joaquin inflow to south Delta exports ratio. The preferred alternative includes Fall X2, but the project proponents are still leaving open the possibility of operating the WaterFix preferred alternative without Fall X2 (see RDEIR/SDEIS Appendix F). Considering the significant historical reduction of flows and degradation of water quality in the Delta in the fall, as well as the scientific relationships between fish abundance and X2 in the Fall, it is outrageous that the Natural Resources Agency, the Department of Water Resources, and the U.S. Bureau of Reclamation continue to fail to accept the need for increased outflows in the Fall and decreased Fall X2.	Under the Proposed Project (Alternative 4A), export of up to 10,300 cfs of SWP water in the wetter months is based upon conveyance through the Banks Pumping Plant of water diverted at the north and south Delta intakes. The Proposed Project would maintain the same limitations for diversions from the south Delta into Clifton Court Forebay as under the Existing Conditions and No Action Alternative. The Proposed Project and all other action alternatives are consistent with the State Water Resources Control Board Decision 1641 requirements. As discussed in this comment, the Inflow/Export ratio criteria included in the 2009 NMFS Biological Opinion is being proposed to be replaced by an Old and Middle River (OMR) flow criteria. Please also see Master Response No.29 related to the ESA. Please see Master Response No. 4 related to the range of alternatives. The range of alternatives also evaluated included a range of Delta outflow criteria from no Fall X2 criteria to increased spring outflow criteria as compared to the No Action Alternative. The Proposed Project includes Fall X2 criteria as described in the 2008 USFWS biological opinion. There continues to be scientific uncertainty regarding the level of outflow necessary to meet the needs of delta smelt (in fall months) and longfin smelt (in spring months).
2502	35	It is also appalling that these agencies with responsibilities to contribute to protecting fish in the Delta, have failed to analyze alternatives designed to adapt to reasonably foreseeable State Water Resource Control Board increased Delta flow requirements (consistent with the 2010 Delta Flow Criteria developed by the SWRCB and Department of Fish and Wildlife). An alternative (4H3) that responds to a SWRCB request for analysis of increased Delta flow requirements is discussed in Appendix C, but no attempt was made modify the proposed project, e.g., by adding storage, to optimize this potentially more viable alternative.	Please see Master Response No. 4 related to the range of alternatives. As described in Appendix 3A of the EIR/EIS, comments and suggestions received from the State Water Resources Control Board were influential in defining the range and content of alternatives considered in the EIR/EIS, including the State Water Resources Control Board's Delta Flow Criteria Report, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009, which described providing up to 75 percent of unimpaired flow into the Delta from January to June to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. A letter from the Executive Director of the State Water Board to the deputy secretary of the Natural Resources Agency on April 19, 2011 recognized that the determination did not consider the competing needs for water or other public trust resource needs,

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			such as the need to manage cold-water resources in tributaries to the Delta. Further, implementation of these flows would also likely affect water users beyond those receiving CVP and SWP deliveries south of the Delta. As described in Section 3A.3.5, alternatives requiring impairment of senior water rights held by entities not participating in the BDCP were eliminated from full consideration in the EIR/EIS, as such rights could not be infringed by CDFW, USFWS, or NMFS through this Project. Scoping comments from the State Water Resources Control Board included requests for an alternative providing for reduced diversions and an alternative incorporating changes to Delta outflows (and potentially inflows) that would reflect a more natural hydrograph. The Lead Agencies determined that an additional alternative would be required to be responsive to the State Water Board's comments. Informed by these comments, as well as several letters from the State Water Board to the Natural Resources Agency, DWR met with State Water Board staff to identify a general approach to model an increased spring Delta outflow alternative. This alternative was designed to increase spring Delta outflow by approximately 1.5 million acre-feet, on average, above the NEPA baseline assumptions. This became Alternative 8 as analyzed in the EIR/EIS. Please refer to Master Response 4 for additional details on the selection of alternatives. Also, please see Master Response 2 for additional details on the project purpose and need. Please see Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.
2502	36	Most of the serious flaws identified by Contra Costa County and others with the WaterFix preferred alternative remain, such as the harm caused to key fish species, degradation of Delta water quality, increasing rather than decreasing total exports and even south Delta exports during drier months (relative to existing conditions), and the failure to increase water supply reliability, also apply to the other WaterFix and BDCP alternatives. A new Draft EIR/EIS must be prepared that includes alternatives that commit to actions that actually achieve the co-equal goals of improving water supply reliability and restoring the Delta ecosystem, while improving Delta water quality and protecting the Delta as a place. The new Draft EIR/EIS must then be released for public review and comment.	The proposed project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Please refer to Master Response 4 for additional details on the selection of alternatives. Also, please see Master Response 6 for additional details on demand management and Master Response 2 for additional details on the project purpose and need.
2502	37	The RDEIR/SDEIS preferred alternative is significantly flawed and is not in the interest of California. The latest WaterFix proposal is the result of the state and federal administrations ceding their responsibilities to the export water contractors. The proposed north Delta intakes and operating rules will harm key fish species by reducing flows downstream of the intakes which also increases predation and reduces survival, altering the olfactory cues for returning salmon and steelhead, and impinging and entraining fish at the new screened intakes. The preferred alternative will continue to rely on south Delta exports for 50% of the total exports and will increase rather than decrease exports in drier months, will not minimize reverse flows in many months and will increase reverse flows in some, and Clifton Court Forebay will remain unscreened. The south Delta exports will, therefore, continue to harm key fish species.	The proposed criteria are meant to avoid or minimize operational effects on listed fish species, including the timing and volume of diversions. Proposed diversions at the south and north Delta are coordinated and are based, primarily on hydrology, fish presence, and the need to meet water quality and other objectives. The EIR/EIS concludes that there are no significant impacts on listed fish. The preferred alternative also includes a CSAMP designed to study the necessity of fall outflow. The Proposed Project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high to improve conditions for aquatic resources in the Delta, as shown in Appendix 5A, Section C of the EIR/EIS. As shown in Appendix 5A, Section C, the Old and Middle River flows under Alternative 4A would be more positive than under the No Action Alternative except in April and May in wet years. The model results indicate that in these months, the increased reverse Old and Middle River flows would range from approximately -119 to -427 cfs. The purpose and need of the Proposed Project was to minimize the effects of the action alternatives as compared to the No Action Alternative, and not to eliminate reverse flows. The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of

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			Appendix 3A of the EIR/EIS. Master Response No. 4 related to Alternatives Analysis.
2502	38	The BDCP proposed project was found to significantly degrade water quality in the Delta and impair drinking water, agriculture, recreation and fish and wildlife beneficial uses in the Delta. No full model runs were performed to determine the water quality impacts of the new WaterFix alternatives, only "brief sensitivity analyses" with incomplete information and based on earlier flawed BDCP model runs for entirely different amounts of habitat restoration and sea level rise (late long term instead of early long term) have been run. The WaterFix proponents now speculate that the water quality impacts identified in the Draft BDCP EIR/EIS are now avoidable, but present no model run data to support this claim.	The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	39	Depending on how much habitat restoration is done for WaterFix and EcoRestore and the locations of that habitat restoration, the adverse water quality impacts in some areas of the Delta such as Barker Slough and Suisun Marsh could be extremely large. The habitat restoration under WaterFix and EcoRestore is not specified or analyzed in the RDEIR/SDEIS.	Alternatives 2D, 4A, and 5A do include habitat restoration in Suisun Marsh and Yolo Bypass in accordance with the 2008 USFWS and 2009 NMFS biological opinions, just as under the No Action Alternative. There are no differences in effects on resources due to the implementation of the habitat restoration in Suisun Marsh or Yolo Bypass due to the implementation of Alternatives 2D, 4A, and 5A as compared to the No Action Alternative. Alternatives 2D, 4A, and 5A do not include habitat restoration acreages considered under the HCP process described in the 2013 Draft EIR/EIS. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. Potential effects of implementing EcoRestore are considered as in the cumulative impact assessment sections of the resource chapters in the EIR/EIS. Please refer to Master Responses 33 regarding adaptive management and monitoring. Please also see Master Response 17 biological resources.
2502	40	The BDCP proponents have refused to seriously consider alternatives that incorporate actions identified in the January 2014 California Water Action Plan and requested repeatedly by commenters on the BDCP Administrative Draft EIR/EIS and Public Draft EIR/EIS, e.g., additional storage and other infrastructure to allow the project to capture additional water in wet months, and water use efficiency and demand reduction actions. This would make more water available in an environmentally responsible way that could then be used to improve water supply reliability and improve the Delta ecosystem by reducing exports in drier periods. The current drought emergency has demonstrated the need for ways to capture water in wet months and store it for later use during drier periods.	The California Water Action Plan five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species -- amid the uncertainty of drought and climate change. For more information regarding future developments of the California Action Water Plan please follow http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS. Please also see Master Response 37 regarding water storage.
2502	41	The WaterFix preferred alternative also hinders and delays California's efforts to increase California's water supply reliability. The proposed north Delta intake and tunnel project fails to produce any significant increase in water supply from the Delta.	A purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. The Proposed Project is intended to provide a more reliable water supply, with diversions that are more protective for fish, in accordance with the Delta Reform Act co-equal goals of improving water supply reliability and Delta ecosystem health. Please refer to Master Response 2 (Purpose and Need). The Proposed Project is also intended to provide a reliable water supply, with diversions that are more protective for fish, in accordance with the Delta Reform Act co-equal goals of improving water supply reliability and Delta ecosystem health. Please see Master Response 31 (Consistency with Delta Reform Act). It is projected that water deliveries from the federal and state water projects under a fully-implemented California Waterfix project would be similar to deliveries that would occur under the No Action Alternative, as described in Appendix 5A, Section C of the EIR/EIS.
2502	42	The WaterFix and BDCP alternatives fail to achieve either of the coequal goals set by the legislature, and endorsed by Congress in 2009 (Public Law 112-74). The immense financial and human resources cost of the proposed project will prevent other more viable actions to	Please refer to Master Response 4 for additional details on the selection of alternatives. Also, please see Master Response 6 for additional details on demand management and Master Response 2 for additional details on the project purpose and need. For more information regarding the proposed project's compliance

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		address California's water problems from being realized.	with the Delta Reform Act please see Master Response 31.
2502	43	The WaterFix proposed project is seriously flawed. The original basis for the Bay-Delta Conservation Plan was to obtain regulatory assurance (50 years) by improving and restoring the ecosystem in the Delta for key fish species. The WaterFix project will no longer restore the promised 65,000 acres of habitat, instead only a small amount of restoration is proposed by the project proponents to be enough to mitigate impacts from the WaterFix project. However, the conveyance component of the BDCP proposal, adding new export intakes in the north Delta on the Sacramento River, was retained. This was recommended by the fish agencies many years ago as a means of reducing the impacts of south Delta exports on fish. Detailed review of the analyses performed for the BDCP and WaterFix environmental documents reveal that the impacts of the south Delta exports will remain significant. The WaterFix preferred alternative would: (a) Eliminate or ignore existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay which would result in increases in the maximum inflows from 6,680-7,180 cubic feet per second up to 10,300 cubic feet per second (BDCP Draft EIR/EIS, page 3-32. line 12 and not disclosed in the RDEIR/SDEIS); (b) Fails to screen the intake to the Forebay (even though DWR's November 2009 Conceptual Engineering Report - Through-Delta Facility Conveyance Option contains feasible examples of how this could be done, see Fig. 7-5 of the CER); (c) Creates reverse flows in Old and Middle River (OMR) that are even worse at certain times of the year relative to existing conditions, and fail to minimize reverse flows in many other months; (d) Ignore the biological opinion limits on the ratio of San Joaquin inflow to south Delta exports; € Still use the south Delta for 50% of the total SWP and CVP exports. As revealed in the November 2013 Draft BDCP, the north Delta intake would also harm key fish species by reducing flows on the Sacramento River below the new intakes which will reduce the survival of anadromous fish heading to and from the ocean, change the olfactory cues used by the salmon to return to their native spawning grounds, and increase predation (see BDCP pages 3.2-8, 5.5.3-32 and 5.5.3-39).	The portion of the comment related to the proportion of the total Delta exports conveyed through the south Delta intakes is consistent with the information in the EIR/EIS. The Proposed Project would increase Delta exports and reduce Delta outflow during wet and above normal years with the use of the North Delta intakes. The Proposed Project includes Fall X2 criteria as under the 2008 USFWS biological opinion. The Proposed Project also includes an additional spring Delta outflow objective, which falls between the spring outflow requirements described in operational scenarios for Alternatives 4H3 and 4H4. Please see Master Response 14 related to water quality and modeling and Master Response 4 related to Alternatives Analysis. Chapter 11 of the FEIR/FEIS describes the projected effects of the Proposed Project, Alternative 4A, to fish species. For more information regarding operational criteria please see Master Responses 28.
2502	44	The three new WaterFix intakes will be upstream of the entrances to Sutter and Steamboat Sloughs. Reductions in flows in the Sacramento River below the intakes will likely reduce the percentage of out-migrating salmon using the safer Sutter-Steamboat route to the ocean. The project proponents considered locating the north Delta intakes downstream of the entrances to Sutter and Steamboat to reduce this significant adverse impact on these key fish species (BDCP Draft EIR/EIS, Appendix 3F, page 3F-6), but the intakes are now proposed to be located upstream. The BDCP also assumed that tidal restoration in the Cache Slough complex could modify flows and tidal variations and reduce the impacts of the north Delta intakes on fish passage through Sutter and Steamboat. However, this tidal habitat restoration is no longer part of the WaterFix project.	Please see Master Response 4 regarding the range of alternatives selected. The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (see, e.g., Cal.Wat. Code, § 85001[c]). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment eat the south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most

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		The proposed WaterFix new intake and tunnel facilities and continued use of the inadequately screened south Delta export intakes are likely to seriously harm key fish species and fail to contribute to restoring and sustaining the Delta ecosystem. A new Draft EIR/EIS must be prepared that includes new alternatives incorporating new storage, other possible intake locations in the Delta, that would benefit threatened and endangered species and other resident fish in the Delta. The new Draft EIR/EIS must then be recirculated for public review and comment.	vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11, RDEIR/SDEIS. The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A of the EIR/EIS.
2502	45	A detailed review of the WaterFix sensitivity analyses data for Alternative 4A reveals that the monthly exports from the south Delta exceeded the U.S. Army Corps of Engineers (USACE) limits on inflow to Clifton Court Forebay from the south Delta. See Attachment C to this letter. As described on page 5A-B6, per U.S. Army Corps of Engineers Public Notice 5820A (13 October 1981), the USACE determined that DWR would not require additional USACE permitting for the SWP's diversions from the Delta as long as the SWP is limited to daily diversion into Clifton Court Forebay that would not exceed 13,870 acre-feet and the 3-day average diversions into Clifton Court Forebay would not exceed 13,250 acre-feet (about 6,680 cubic feet per second). In addition, the SWP can increase diversions into Clifton Court Forebay by one third of the San Joaquin River flow at Vernalis during the period from mid-December to mid-March when the flow of the San Joaquin River at Vernalis exceeds 1,000 cubic feet per second. As also described on page 5A-B3 of the BDCP Draft EIR/EIS, an additional capacity of 500 cubic feet per second (up to 7,180 cubic feet per second) is allowed into Clifton Court Forebay for July - September for reducing impact of NMFS biological opinion (June 2009) Action IV.2.1 Phase II on the SWP. During April-November when inflows are limited 6,680 - 7,180 cubic feet per second, the sensitivity analyses for Alternative 4A, and BDCP modeling studies suggest inflows to Clifton Court (SWP through- Delta exports) will be as high as 9,750 cubic feet per second with total south Delta exports as high as 14,350 cubic feet per second. This is not consistent with the claimed benefit of the north Delta intakes of reducing exports from the south Delta. The WaterFix RDEIR/SDEIS is inadequate because it fails to clearly disclose to the public and to decision makers like the Army Corps that DWR is proposing to eliminate existing limits on the inflow to Clifton Court. In several locations in the BDCP Draft EIR/EIS, it was noted that pumping at Banks Pumping Plant is assumed to be up to the installed capacity of 10,300 cubic feet per second. In Table 3-6 on page 3-36 of the BDCP Draft EIR/EIS, it is stated that Alternatives 1-4 and Alternatives 6-8 do not incorporate the operational rule related to the permitted limit on Clifton Court Forebay inflow (6,680 cubic feet per second plus 1/3 of San Joaquin River Dec 15 - March 15). Therefore, it is not clear whether the operation rule is in fact 10,300 cubic feet per second. The revisions to BDCP Draft EIR/EIS Chapter 3 in the RDEIR/SDEIS (Appendix A, Chapter 3) no longer include reference to the limits on Clifton Court inflow, nor are there any tracked change deletions.	The Proposed Project would increase Delta exports and reduce Delta outflow during wet and above normal years with the use of the North Delta intakes, as described in Chapter 5, Water Supplies, and Chapter 6, Surface Water. In addition, the Proposed Project would reduce Delta exports and increase Delta outflow during drier years, as described in Chapter 5, Water Supply, of the Final EIR/S. Under the Proposed Project, export of up to 10,300 cfs of SWP water in the wetter months is based upon conveyance through the Banks Pumping Plant of water diverted at the north and south Delta intakes. The Proposed Project would maintain the same limitations for diversions from the south Delta into Clifton Court Forebay as under the Existing Conditions and No Action Alternative. As described in the Conceptual Engineering Report referenced in the EIR/EIS, Alternative 4A would not include pumping plants at the intakes. Instead, a pumping plant would be installed at the northern end of an expanded Clifton Court Forebay. The tunnels were redesigned to allow for water to flow by gravity to the Clifton Court Forebay pumping plants which would lift the water from the north Delta diversions into the expanded Clifton Court Forebay. It would not be possible to operate the proposed tunnels at flows greater than 9,000 cfs unless the entire proposed pumping plant at the northern Clifton Court Forebay was reconstructed to provide for hydraulic flow of larger flows. This type of modification would require additional engineering and environmental studies and is not addressed in this EIR/EIS.
2502	46	DWR failed to disclose its intent to eliminate the limits on inflow to Clifton Court in its Section 404 application to the U. S. Army Corps of Engineers. Nowhere is it disclosed whether this is DWR's intent or not, but the sensitivity analysis data in the RDEIR/SDEIS contains frequent willful exceedances of this limit. This proposal to increase SWP exports from the south Delta is a major change that could have significant impacts on the Delta ecosystem and Delta water quality. It is also contrary	The Proposed Project would increase Delta exports and reduce Delta outflow during wet and above normal years with the use of the North Delta intakes, as described in Chapter 5, Water Supplies, and Chapter 6, Surface Water. In addition, the Proposed Project would reduce Delta exports and increase Delta outflow during drier years, as described in Chapter 5, Water Supply, of the Final EIR/S. Under the Proposed Project, export of up to 10,300 cfs of SWP water in the wetter months is based upon conveyance through the Banks Pumping Plant of water diverted at the north and south Delta intakes. The Proposed Project would maintain

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		to the stated project goal of reducing the existing adverse impacts of south Delta diversions. A new Draft EIR/EIS must be prepared that fully discloses DWR's intent to increase south Delta exports and to disclose the environmental impacts of eliminating the current U.S. Army Corps limits. This will enable the public and regulatory agencies to assess the adverse environmental impacts of this proposed change.	the same limitations for diversions from the south Delta into Clifton Court Forebay as under the Existing Conditions and No Action Alternative.
2502	47	CEQA requires that an "EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." (CEQA Guidelines, 14 CCR § 15126.6(a)) The RDEIR/SDEIS is inadequate because it fails to consider and analyze feasible alternatives that incorporate additional storage and new infrastructure to capture "new" water during periods of high flow in the Delta, as well as other more viable intake locations that would not harm key fish species. Both the south Delta and north Delta intake locations would significantly harm fish species. The south Delta export intakes are unscreened or inadequately screened and cause reverse flows that increase entrainment and mortality of fish species in the Delta. The north Delta intakes will reduce flow into and through the Delta, cause reverse flows in the north Delta and reduce migrating fish survival, and increase predation impacts. The November 2013 Draft BDCP acknowledged that the north Delta intakes will have an adverse impact on key fish species. This is not offset by reducing exports from the south Delta because the south Delta export intakes will continue to be used for 50% of the total exports and most of the exports will still be from the south Delta in dry periods.	Please see Master Response 4 and response to Comment 2502-44 above. The EIR/EIS compares conditions under all action alternatives, including Alternative 4A, as compared to the Existing Conditions and No Action Alternative. The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (see, e.g., Cal.Wat. Code, § 85001[c]). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment eat the south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11 in the EIR/EIS. Please also refer to Master Response 30 related to Modeling.
2502	48	The RDEIR/SDEIS also fails to seriously analyze alternatives that incorporate increased Delta flows consistent with the Delta Flow Criteria developed by the SWRCB and Department of Fish and Wildlife in 2010. The analyses that were done (BDCP Alt. 8 and WaterFix Alt. 4H3) used the same configuration as the proposed project without incorporating any infrastructure such as new storage that would allow "new" water to be captured to offset the water being made available to help restore and sustain the Delta ecosystem. New alternatives involving higher Delta flows during dry periods and new storage will help to improve water quality in the Delta, as required by the 2009 Delta Reform Act, rather than degrade it.	As described in Appendix 3A of the EIR/EIS, comments and suggestions received from the State Water Resources Control Board were influential in defining the range and content of alternatives considered in the EIR/EIS, including the State Water Resources Control Board's Delta Flow Criteria Report, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009. Scoping comments from the State Water Resources Control Board included requests for an alternative providing for reduced diversions and an alternative incorporating changes to Delta outflows (and potentially inflows) that would reflect a more natural hydrograph. The Lead Agencies determined that an additional alternative would be required to be responsive to the State Water Resources Control Board's comments. Informed by these comments, as well as several letters from the State Water Resources Control Board to the Natural Resources Agency, DWR met with State Water Resources Control Board staff to identify a general approach to model an increased spring Delta outflow alternative. This alternative was designed to increase spring Delta outflow by approximately 1.5 million acre-feet, on average, above the NEPA baseline assumptions. This became Alternative 8 as analyzed in the EIR/EIS. Consideration of the specific determination contained in the Delta Flow Criteria Report, which identified 75% of unimpaired net Delta outflow for January through June, would not have been feasible to include as an alternative in the BDCP EIR/EIS. A letter from the Executive Director of the State Water Board to the deputy secretary of the Natural Resources Agency on April 19, 2011 recognized that the determination did not consider the competing needs for water or other public trust resource needs, such as the need to manage cold-water resources in tributaries to the Delta. Further, implementation of these flows would also likely affect water users beyond those receiving CVP and SWP deliveries south of the Delta. As described in Section

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			3A.3.5, alternatives requiring impairment of senior water rights held by entities not participating in the BDCP were eliminated from full consideration in the EIR/EIS, as such rights could not be infringed by CDFW, USFWS, or NMFS through those agencies' actions for the Proposed Project. Please refer to Master Response 4 for additional details on the selection of alternatives and compliance with CEQA and NEPA. Please also see Master Response 31 regarding compliance with the Delta Reform Act.
2502	49	The November 2013 BDCP Draft EIR/EIS disclosed significant adverse impacts on water quality in the Delta. The BDCP Draft EIR/EIS described these significant adverse impacts as unavoidable, despite State policy and anti-degradation statutes requiring that Bay-Delta projects not only contribute to achieving the both coequal goals, but also contribute to improving water quality in the Delta (2009 Delta Reform Act, Cal. Water Code § 85020(e)). The BDCP Draft EIR/EIS failed to offer any meaningful, binding, or effective mitigation for these significant adverse impacts. Incomprehensibly, the July 2015 California WaterFix RDEIR/SDEIS states that the new alternatives (4A, 2D and 5A) do not have any significant impacts on water quality in the Delta. Apparently, the lead agencies new position is that the significant adverse impacts in the Draft EIR/EIS were avoidable after all. The July 2015 RDEIR/SDEIS assumes away these significant adverse impacts without supporting those assumptions with any detailed model runs, and only using "brief sensitivity analyses" (Appendix B, page B-1) based on BDCP Draft EIR/EIS modeling studies that were flawed. Comments on the BDCP Draft EIR/EIS by Contra Costa Water District, the City of Antioch, North Delta Water Agency and others identified significant problems with those studies and the modeling tools that were used. The RDEIR/SDEIS acknowledges the CALSIM II model has since been updated (Appendix B, page B-3) but the lead agencies apparently did not consider it was necessary to provide the public and regulatory agencies with new, corrected, detailed model runs. The CALSIM II model runs from the Draft EIR/EIS were "used as is . . . to remain consistent with the draft EIR/EIS modeling" (Page B-3) so errors with the original modeling are also in the RDEIR/SDEIS sensitivity analyses. The claims, in the RDEIR/SDEIS, that there are no significant adverse water quality impacts are purely speculative and optimistic, without any accurate analysis to support them. A new Draft EIR/EIS must be prepared with input from a wide stakeholder group that analyzes and discloses the water quality and other environmental impacts of Alternatives 4A, 2D and 5A and new alternatives that actually contribute to achieving both coequal goals. The new Draft EIR/EIS should then be released for public review and comment.	The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	50	The lead agencies used "brief sensitivity analyses" that DWR acknowledges are not full model runs. The RDEIR/SDEIS in revised language states (Appendix A, Appendix 8G, page 8G-1): "Understanding the uncertainties and limitations in the modeling and assessment approach is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives. .... In light of these limitations, the assessment of compliance is conducted in terms of assessing the overall direction and degree to which Delta chloride would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta chloride to be out of compliance a certain period of time. In other words, the model results are used in a comparative mode, not a predictive mode." The RDEIR/SDEIS is inadequate because it fails to carry out full	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS. Also, please refer to Master Response 4 related to range of alternatives

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		model runs that simulate the absolute impacts of the proposed project. DWR included the following Disclaimer with its transmittal of the RDEIR/SDEIS "sensitivity analyses" data to the public. "Sensitivity analyses are not full model runs! Minor changes (as summarized below) have been made to the full model runs performed for the BDCP Public Draft to assess the effects of the specific change. CALSIM II sensitivity model runs were not re-balanced to address any new or modified effects (as would be done for a full model run) that may be a result of the minor changes. The sensitivity analyses are only valid to assess the impacts of the minor changes. CALSIM II and DSM2 results from the sensitivity runs should only be used to answer the specific questions for which the runs were performed." The RDEIR/SDEIS (Appendix B, Page B-3) states that Alternative 4 CALSIM II models from draft EIR/EIS were used, as is, for the Alternative 4A sensitivity analysis, without including any recent updates to the CALSIM II. The RDEIR/SDEIS says the reason for not using the most recent, corrected, versions of the CALSIM II flow operations model was "to remain consistent with the draft EIR/EIS modeling.' As discussed in detail in comments by Contra Costa Water District, the City of Antioch, the North Delta Water Agency, and others on the November 2013 Draft EIR/EIS, the draft EIR/EIS modeling was seriously flawed, and the models themselves have since had to be updated. The sensitivity analyses are also unacceptable for a CEQA/NEPA analysis of environmental impacts because only minor changes were made to the flawed draft EIR/EIS model runs and the CALSIM II runs were not rebalanced or optimized to take into account other changes to the alternatives (DWR Modeling Data Disclaimer). The sensitivity analyses approach in the RDEIR/SDEIS is not valid and does not inform the Alternative 4A impact analysis.. In fact, it may result in misleading results. For example, the water quality sensitivity analyses were carried out using BDCP proposed project Alternative 4 at late long term (year 2060 future conditions, 65,000 acres of habitat restoration and 45 cm of sea level rise) but the impact analysis in the RDEIR/SDEIS is done at the early long term (year 2025, 25,000 acres of habitat restoration and 15 cm of sea level rise) conditions. Because the water quality analyses still included sea level rise, the effect of seawater is simulated to be much greater at late long term than at early long term. The RDEIR/SDEIS is inadequate because it uses flawed draft EIR/EIS modeling and a "brief sensitivity analysis" (RDEIR/SDEIS Appendix B, page B-1) to analyze and disclose the environmental impacts of a project of statewide importance that is likely to cause significant harm to the Delta ecosystem, and other Delta beneficial uses. The RDEIR/SDEIS itself acknowledges that "there is notable uncertainty in the results of all quantitative assessments that refer to modeling results, due to the differing assumptions used in the modeling and the description of the No Action Alternative (ELT)" (Chapter 4, Page 4.2-18). The RDEIR/SDEIS states that "Based on the sensitivity analyses, optimizing the design and siting of restoration areas is expected to be able to reduce electrical conductivity and chloride increases in Suisun Marsh, relative to Existing Conditions and the No Action Alternative, to levels that would be less than significant." (Page ES-27, Line 16) As discussed above, the sensitivity analyses were performed under quite different conditions (late long term with additional sea level rise and much more habitat restoration, 65,000 acres) than the preferred alternative, Alternative 4A (early long term, less sea level rise, no shift in the	

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		Emmaton compliance location, and no significant amount of habitat restoration). The RDEIR/SDEIS makes no firm commitments to mitigate the expected impacts by implementing habitat restoration at optimized sites. Only a small amount of habitat restoration is being considered as part of California EcoRestore and that is already required under the Operational Criteria and Plan Biological Opinions. There is no commitment by the WaterFix lead agencies to site that habitat restoration to mitigate Suisun Marsh, Barker Slough or other expected Delta water quality impacts. There are no reliable "facts in evidence" to support the optimistic expectation that water quality impacts will be reduced to less than significant levels. The RDEIR/SDEIS must be withdrawn immediately and detailed modeling studies and analysis of Alternative 4A and additional more viable, less costly, alternatives must be carried out. A new Draft EIR/EIS must then be prepared and released for public review and comment.	
2502	51	The Sensitivity Analyses were based on the flawed modeling for Alternative 4, Scenario H3 at late long term, i.e., 2060 conditions with habitat restoration, and were not updated using the most recent versions of the CALSIM II and DSM2 models. Figures B-1 [ATT 1] and B-2 [ATT 2] show the range of electrical conductivity at Barker Slough for some of the sensitivity analyses: SA1 BDCP Draft EIR/EIS Alternative 4, Scenario H3 at LLT SA2d Same as SA1 but with compliance at Emmaton and daily flow variations SA4 Same as SA1 but with Suisun Marsh Control Gate operations consistent with the NAA SA4a Same as SA4 but without the 65,000 acres of tidal habitat restoration The sensitivity analysis data were provided to the County by DWR. Also plotted for comparison purposes is the No Action Alternative developed for the WaterFix RDEIR/SDEIS for late long term. The RDEIR/SDEIS only presented the water quality data as the averages for each month of the year for the short period modeled, water years 1976-1991, and for the water year 1987-1991 drought period. The 1976-1977 drought period was not included in the drought averaging As shown in Figure B-1 and Figure B-2, removing the 65,000 acres of habitat restoration could reduce EC at Barker Slough during drought periods (relative to the BDCP Draft EIR/EIS proposed project, SA1) but increases EC significantly in normal and wetter years. The RDEIR/SDEIS only presents bromide concentration changes at Barker Slough and Belden's Landing as period averages (Appendix B, Tables Br-1 and Br-2) but does present chloride concentration changes at these two locations as period averages for each month of the year (Tables Cl-6 and Cl-7). The bromide and chloride concentrations are derived from the simulated EC data using two different methods. However, the corresponding presentation of EC data (Table EC-8A) does not show the averages for Barker Slough or Belden's Landing. This is a major omission. However, as noted by the Delta Independent Science Board in their September 30, 2015 review of the RDEIR/SDEIS, the presentation of data in this environmental document is "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists and the broader public." The use of long-term averages in the tables in Appendix B masks the significant changes in water quality at Barker Slough and	The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS as well as salinity.

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		Belden's Landing and fails to disclose significant adverse water quality impacts. Depending on where the habitat restoration needed to mitigate the significant adverse impacts of the WaterFix preferred alternative is implemented, and where the habitat restoration for California EcoRestore is implemented, the water quality impacts at Barker Slough and in Suisun Marsh could be significant. The timing of those impacts will also vary depending on the degree of habitat restoration. It is crucial that these impacts be determined, analyzed using full model runs, disclosed and either avoided or mitigated defined, before decisions are made by regulatory agencies such as SWRCB and the Army Corps and the lead agencies regarding the WaterFix project. Figures B-3 [ATT 3] and B-4 [ATT 4] show the EC data for each month of the 16-year sensitivity analysis simulation period (192 data points) in the form of scatter plots. The EC data for Barker Slough and Belden's Landing for Sensitivity Analysis #4 (no habitat restoration) are plotted as a function of the WaterFix No Action Alternative and both are at late long term. Some peak Ecs at Barker Slough are reduced relative to the No Action equivalent but significant adverse impacts occur at other times. There are some reductions in EC relative to the No Action equivalent at Belden's Landing but significant adverse impacts occur at other times. The presentation of water quality data must present the data in sufficient detail to fully disclose the daily or month to month variations in water quality, in particular the occasions when salinities increase significantly. It is not acceptable to only present long-term averages that obscure and reduce the significant impacts on urban and agricultural water users, and the Delta ecosystem. The RDEIR/SDEIS is inadequate because it fails to present analyses data in a form that discloses the daily or month to month impacts of the proposed project on water quality and fails to avoid or provide definitive mitigation for these significant impacts on water quality.	
2502	52	ATT 1: Figure B-1: Daily EC values at Barker Slough from the sensitivity analyses for the period October 1976 through September 1984.	Please see response to Comment 2502-51.
2502	53	ATT 2: Figure B-2: Daily EC values at Barker Slough from the sensitivity analyses for the period October 1984 through September 1991.	Please see response to Comment 2502-51.
2502	54	ATT 3: Figure B-3: Scatter plot of daily EC values at Barker Slough from the WaterFix sensitivity analyses with no restoration (SA4a, LLT) for the period October 1975 through September 1991. Some peak EC are reduced relative to the No Action equivalent but significant adverse impacts occur at other times.	Please see response to Comment 2502-51.
2502	55	ATT 4: Figure B-4: Scatter plot of daily EC values at Belden's Landing from the WaterFix sensitivity analyses with no restoration (SA4a, LLT) for the period October 1975 through September 1991. There are some reductions in EC relative to the No Action equivalent but significant adverse impacts occur at other times.	Please see response to Comment 2502-51.
2502	56	The RDEIR/SDEIS appears to deceive the public and decision makers by claiming that Alternatives 4A, 2D and 5A were evaluated, and that the evaluation was at early long term. Of particular concern are the tables in Appendix B, Supplemental Modeling Results for New Alternatives that claim to present the water qualities for Alternative 4A for Scenario H3 and H4 at early long term when no full model runs or even sensitivity runs were performed for	Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS., refer to Master Response 4 related to Alternatives Analysis.

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		those cases. A new Draft EIR/EIS must be prepared that performs full modeling of the operations and water quality with the proposed project and new alternatives designed to actually help achieve both coequal goals. Revised modeling results, not based on speculated or assumed values must be presented in the water quality tables. A new Draft EIR/EIS must then be prepared and released for public review and comment.	
2502	57	Under existing conditions, the equivalent steady-state Delta outflows required to meet the D-1641 estuarine habitat standards (X2) at Chipps Island (aka Mallard Island) and Collinsville are defined as 11,400 cubic feet per second and 7,100 cubic feet per second, respectively. By 2025 (early long term) and 2060 (late long term), sea level rise will mean that the amount of Delta outflow needed to meet X2 will increase. The outflows required to meet the Fall X2 requirement in September and October in the Water Fix analyses using CALSIM II, however, are very much larger. As shown in Figure B-5 [ATT 5], the assumed minimum Delta outflows to meet X2 at Mallard Island (in wet years) and Collinsville (above normal years) are about 19,500 cubic feet per second and 11,500 cubic feet per second, respectively. These flows seem to be too high and may be artificially freshening the Delta during September and underestimating the water quality impacts of the proposed project. The reason for these high flows may be because the CALSIM II only attempts to meet September X2 requirements at the last minute, whereas increasing Delta outflows earlier will require much less Delta outflow. Figure B-6 [ATT 6] shows in the corresponding Delta outflows and minimum required Delta outflows for October. The October outflows are governed by the need to meet Fall X2 in wet and above normal years. Otherwise the D-1641 requirement of 3,000 cubic feet per second in critical years and 4,000 cubic feet per second in other water years applies. The flows assumed to be required to meet Fall X2 are consistent with the existing X2 outflow requirements. However, excess Delta outflows are occurring in many below normal, dry and critical years, which may underestimate the actual water quality impacts of the proposed project. The limited analysis of water quality impacts in the RDEIR/SDEIS is also inadequate because the reason for unexpectedly high Delta outflows in September to meet Fall X2 is not explained or justified. The real time operations of the proposed project would likely call for the start of increased flows to begin in August to meet the September Fall X2 requirements (to account for the delayed response between outflow and salinity in the western Delta) and require much less total outflow. The actual water quality impacts in September are likely to be higher than presented in the RDEIR/SDEIS so the real adverse impacts are not fully disclosed. Similarly, excess Delta outflows are being provided by the CALSIM II model in drier years in October which also underestimates the potential adverse water quality impacts in October. A new Draft EIR/EIS must be prepared that corrects or justifies through detailed modeling and detailed data presentations, the apparent excessive Delta outflows in both September and October which cause water quality impacts to be under predicted. The new Draft EIR/EIS must then be released for public review and comment.	The lead agencies worked with USFWS, NMFS, and CDFW to develop methods to incorporate Fall X2 operations in the CALSIM II model. These assumptions are included in both the action alternatives and the No Action Alternative. The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the No Action Alternative to define the effects of the action alternatives without effects related to climate change, sea level rise, and population growth that would occur with or without the action alternatives. Because the assumptions related to operations with Fall X2 criteria are included in the action alternatives and the No Action Alternative, the incremental changes related to the implementation of the action alternatives would be similar even if Fall X2 operational assumptions were changed. It should be noted that the model results cannot be used to project absolute values, as described in Appendix 5A in the EIR/EIS. Please see Master Response 30 related to modeling and sensitivity analyses related to water quality assessments.
2502	58	ATT 5: Figure B-5: Delta outflows and minimum required outflows for September for the	Please see response to Comment 2502-57.

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		WaterFix operations modeling to represent the preferred alternative 4A at early long term.	
2502	59	ATT 6: Figure B-6: Delta outflows and minimum required outflows for October for the WaterFix operations modeling to represent the preferred alternative 4A at early long term.	Please see response to Comment 2502-57.
2502	60	The water quality analyses are only performed and presented for the period October 1975 through September 1991 (16 years). This period contains two major droughts (1976-1977 and 1987-1991) but only the latter is used to represent the water quality changes under drought conditions. When the data are categorized by month and by water year type, the amount of data available to be averaged can be as few as 2-5 months of data. That is not sufficient data to develop a statistically significant representation of the variations by month and water year type. Also as shown in Figure B-7 [ATT 7], the water year 1976-1991 period is considerably drier than the full historical record (1906-2014) and the 1922-2003 period used for the Central Valley operations modeling using CALSIM II.	The EIR/EIS used the best available tools that are used by state and federal agencies. The full set of inputs needed for these tools are limited to 82-year (Water Years 1922 - 2003) at the time the analysis for the EIR/EIS was performed. The DSM2 analysis was limited to a 16-year analysis. Section D.12 of the Appendix 5A in the EIR/EIS discloses potential differences between the 16-year versus 82-year DSM2 simulations. As noted in this comment, given the 16-year simulation period used for the DSM2 modeling is drier than the 82-year period, the water quality impact analyses would be more conservative, and represents conditions similar to those found over the full 82-year period. The CALSIM II assumptions include compliance with Delta water quality over the long-term operations, and do not reflect changes that could occur during emergency situations such as the recent drought when long-term water quality criteria were modified for the drought conditions. Please see Master Response 30 related to Modeling.
2502	61	ATT 7: Figure B-7: Cumulative probability distributions of the Sacramento 40-30-30 water year indices for the available historical record (1906-2014).	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see response to Comment 2502-60.
2502	62	Page ES-3, Line 9 The RDEIR/SDEIS states that the new WaterFix "sub-alternatives address the reverse flow problem by focusing on the construction and operation of new north Delta intakes and on habitat restoration commensurate with the footprint of these new facilities." The construction of north Delta intakes only reduces south Delta exports and minimize reverse flows in the south Delta some of the time. The WaterFix sensitivity analysis data show that many other times south Delta exports and reverse flows actually increase. Reverse flows in the south Delta remain significant (e.g., more negative than -2,000 cubic feet per second) 55% of the time during the simulation period. A new Draft EIR/EIS must be prepared that fully discloses in clear, understandable and detailed tables and graphs the actual changes in reverse flows as a result of the WaterFix preferred alternative. This lack of clarity and transparency has been identified on numerous occasions by the Delta Independent Science Board, most recently in its September 30, 2015 review comments. The new Draft EIR/EIS must then be released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 related to water quality and modeling.
2502	63	Page ES-4, Line 14 The new WaterFix sub-alternatives, Alternatives 4A, 2D, and 5A, do not "ensure a reasonable range of alternatives." These new alternatives do not include increased flows in the Delta consistent with the SWRCB's 2010 Delta Flow Criteria and are unable to capture "new" water during wet periods, so are unable to help achieve the coequal goals or provide the ecosystem improvements necessary to achieve federal and state endangered species act compliance. A new Draft EIR/EIS must be prepared that analyzes and discloses alternatives that will actually achieve the coequal goals, and released for public review and comment.	For additional supplemental modeling requested by the SWRCB related to increased Delta outflows please see Appendix 5E of the RDEIR/SDEIS. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.. For more information regarding consistency with the Delta Reform Act please see Appendix 3A and Master Response 31.

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2502	64	Page ES-5, Line 22 ES.1.2.2.1 Project Objectives The WaterFix preferred alternative fails to satisfy DWR's fundamental purpose in proposing the proposed project which is "to make physical and operational improvements to the SWP/CVP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations." The WaterFix project will harm the Delta ecosystem, degrade Delta water quality, and fails to improve water supply reliability for CVP and SWP export contractors. It is also very expensive. A new Draft EIR/EIS must be prepared that analyzes and discloses alternatives that will actually comport with DWR's fundamental purpose and help achieve the coequal goals. The new Draft must then be released for public review and comment.	Operation of the Project water delivery system and SWP and CVP facilities would be consistent with permits issued by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and State Department of Fish and Wildlife. Under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. Please see Master Response 14 related to Water Quality.
2502	65	Page ES-8, Line 33 The RDEIR/SDEIS states that "the other alternatives evaluated in the RDEIR/SDEIS, Alternative 4A, 2D, and 5A, are evaluated at the Early Long-Term (ELT) timeframe because the project implementation period is anticipated to be shorter." This is not correct. No full model runs for these three alternatives were carried out and the "brief sensitivity analyses" of water quality impacts that were performed were at late long term (2060 rather than 2025 conditions). The sensitivity analyses were based on flawed Alternative 4 model runs from the BDCP Draft EIR/EIS, never included all the components of the preferred alternative 4A, and most included 65,000 acres of habitat restoration and much greater sea level rise and seawater intrusion. The RDEIR/SDEIS deceives the public and decision makers by claiming that Alternatives 4A, 2D and 5A were evaluated, and that the evaluation was at early long term. Of particular concern are the tables in Appendix B, Supplemental Modeling Results for New Alternatives that claim to present the water qualities for Alternative 4A for Scenario H3 and H4 at early long term when no full model runs or even sensitivity runs were performed for those cases. A new Draft EIR/EIS must be prepared that carries out full model runs for the preferred alternative, the other WaterFix alternatives, as well as new alternatives that actually help to achieve the coequal goals. The new Draft must then be released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to the Existing Conditions. The model results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling.
2502	66	Page ES-9 ES.1.3 Areas of Known Controversy The RDEIR/SDEIS identifies as one known area of controversy the insufficient range of alternatives. The range and adequacy of alternatives is an issue of concern to the public as well as to governmental agencies. Of the 15 alternatives in the BDCP Draft EIR/EIS, only one (Alternative 9) was substantially different in terms of infrastructure than the others. The others all involved new intakes in the north Delta with an isolated conveyance system linking these 3-5 intakes to the SWP and CVP export pumps in the south Delta. The adverse environmental impacts on aquatic species in the Delta and water quality were not significantly different whether the isolated conveyance was a canal, pipeline or tunnel or whether it followed an eastern or western alignment. The three new "sub-alternatives"	The process and results for screening alternatives to be evaluated in the EIR/EIS is fully explained in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Alternative considered but rejected from further review include some of the alternatives listed in this comment. Please refer to Master Response 4, regarding the adequacy of the range of alternatives evaluated in the EIR/EIS.

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		added in the RDEIR/SDEIS are very similar to the earlier 14 in terms of intake location and isolated conveyance and again fail to reduce exports during drier months and capture more water when it is surplus to the needs of the Delta in wetter months, or otherwise contribute to achievement of the coequal goals. A new Draft EIR/EIS must be prepared that includes new alternatives that are substantially different than those already studied, e.g., incorporating new storage, actions to reduce demand on the Delta especially during drier periods, levee strengthening, etc., and fully analyzes and discloses, avoids and mitigates their impacts. The Draft EIR/EIS must then be released for public review and comment.	
2502	67	Page ES-12 ES.1.4.3 Cumulative Impact Analyses The RDEIR/SDEIS includes additional reasonably foreseeable proposed projects that, when considered together with the action alternatives, could have a significant cumulative effect. The analysis includes a discussion of the California Water Action Plan, California EcoRestore, and the Sustainable Groundwater Management Act to better describe the roles of the new Delta conveyance facilities and habitat restoration in the context of the state's comprehensive vision for water management. The proposed project fails to produce any significant improvement in water supply reliability, degrades rather than improves water quality in the Delta, harms key fish species (BDCP Executive Summary), and otherwise fails to meet the state and federal statutory requirements to contribute to achieving the coequal goals. The California Water Action Plan includes additional actions such as new storage that will be necessary in the future to actually achieve what BDCP was originally intended to do. As such the RDEIR/SDEIS should have analyzed operations of the preferred alternative in the future with new storage, actions to reduce demand, and the long overdue habitat restoration required by the SWP and CVP biological opinions (Cal. EcoRestore). DWR also indicated, in the BDCP Draft EIR/EIS, its intent to request that the compliance location for the Emmaton standard be moved to Three Mile Slough. The new alternatives do not include this change in compliance location to reduce the significant adverse water quality impacts of the BDCP alternatives, but a future request that this compliance location be shifted is reasonably foreseeable and should also be modeled as a cumulative impact. The RDEIR/SDEIS also notes that the State Water Resource Control Board is working on revising its Water Quality Control Plan to increase flows on the San Joaquin River (Phase 1) and in the Delta and the other tributaries. The cumulative impact of these flow increases on the proposed project and the viability of the new intakes and twin tunnels once the increased flows are implemented by the SWRCB must be fully analyzed. A new Draft EIR/EIS that performs these revised cumulated impact analyses must be prepared and released for public review and comment.	Appendix 1B, Water Storage, of the 2013 Public Draft EIR/EIS, describes the potential for additional water storage. These potential projects are considered as part of the cumulative impact analysis in the EIR/EIS. The analysis for Fish and Aquatic Resources in the EIR/EIS addresses the potential effects on of water operations on listed fish species. Most of these effects were determined to be less than significant/not adverse or beneficial. Where impacts were determined to be significant, mitigation measures are proposed to reduce the effects The EIR/EIS presents alternatives that assume the compliance location would be moved to Three-Mile Slough and alternatives that assume the compliance location would remain at Emmaton. The water quality and other analyses that are based on CALSIM/DSM2 model results show the potential environmental effects that could occur with and without this change. The Proposed Project (Alternative 4A) and Alternatives 2D and 5A assume that the water quality compliance location is at Emmaton. Please see Master Response 14 related to Water Quality. No change to the cumulative impacts related to this issue has been made. Please also refer to Master Response 9, regarding the cumulative impacts analysis.
2502	68	Page ES-15 The RDEIR/SDEIS says their alternative implementation strategy (Alternatives 4A, 2D, and 5A) focuses on the conveyance facility improvements necessary for the SWP to address more immediate water supply reliability needs, and allows for other state and federal	State and Federal agencies developed the modified proposed project (Alternative 4A/California WaterFix) in response to public and agency input. Alternative 4A reflects the State's proposal to separate the conveyance facility and other non-conveyance habitat restoration measures into two separate efforts: California WaterFix and California EcoRestore. The Proposed Action includes habitat restoration as necessary to mitigate significant environmental effects and satisfy applicable ESA and CESA standards. The new

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		programs to address the long-term conservation efforts for species recovery through programs separate from the proposed project. This is further confirmation that the WaterFix proposal is contrary to the 2009 Delta Reform Act because it only attempts to achieve one of the coequal goals. The new conveyance facilities will not improve conditions for endangered and threatened aquatic species in the Delta. Instead reverse flows in the south Delta will continue, exports from the south Delta will actually increase during drier months, Clifton Court Forebay will remain unscreened, and the new north Delta intakes will harm key fish species (Draft BDCP Executive Summary). Implementing the conveyance facilities alone will exacerbate rather than help resolve many of the concerns with the current south Delta conveyance system. The RDEIR/SDEIS also fails to present any evidence or arguments why implementing new conveyance separately will somehow allow for implementing habitat restoration projects on an expedited schedule through the state's EcoRestore program. These are restoration projects required under the biological opinions that are already long overdue, and there is no guarantee that the funding or will is there to complete these programs. A new Draft EIR/EIS must be prepared that includes alternatives that address and help achieve both coequal goals and the other inherent State objectives, and released for public review and comment.	alternatives, including Alternative 4A, meet the modified project objectives and purpose and need The EIR/EIS was prepared in a manner to comply with the 2009 Delta Reform Act, including sections that are included in this comment, as described in Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, of the EIR/EIS. Please see Master Response 31. As described in Appendix 5A of the EIR/EIS, the numerical models cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate overall changes between alternatives as compared to the Existing Conditions and the No Action Alternative. As shown in Appendix 5A, Section C, the Old and Middle River flows under Alternative 4A would be more positive than under the No Action Alternative except in April and May except in wet years. The model results indicate that in these months, the increased reverse Old and Middle River flows would range from approximately -119 to -427 cfs. The purpose and need of the proposed project was to minimize the effects of the action alternatives as compared to the No Action Alternative, and not to eliminate reverse flows. The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS. The comment refers to the Draft BDCP document which is no longer relevant to the proposed project as described in the RDEIR/SDEIS. Results of analyses of aquatic resources are presented in Chapter 11 of the Final EIR/EIS. The No Action Alternative, proposed project, and all action alternatives would include implementation of the habitat restoration actions in accordance with the 2008 USFWS and 2009 NMFS biological opinions. Although the Proposed Project does not involve HCP or NCCP components, the lead agencies maintain that the proposed project would continue to meet the co-equal goals of a reliable water supply and a restored Delta ecosystem to benefit all water users.
2502	69	Page ES-26 The RDEIR/SDEIS states that "the cause of the modeled increases in bromide in Barker Slough, which was driving the impact conclusion for almost all alternatives, is due to the assumptions regarding tidal habitat restoration not due to conveyance facility operations." No full model runs were performed for the preferred alternative 4A to support that statement, only brief sensitivity analyses that cannot be depended upon for decision making on a more than $15 billion project. There are also no full model runs to support the speculation that "because new alternatives 4A, 2D, and 5A contain a lower acreage of tidal restoration, significant impacts with regard to bromide are not expected under these alternatives." A new Draft EIR/EIS must be prepared that models, analyzes, discloses and avoids or mitigates the impacts of the new alternatives and habitat restoration on water quality in the north Delta. The new Draft EIR/EIS must then be released for public review and comment.	The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling
2502	70	Page ES-27, Line 16 The RDEIR/SDEIS speculates that "based on the sensitivity analyses, optimizing the design and siting of restoration areas is expected to be able to reduce electrical conductivity and chloride increases in Suisun Marsh, relative to Existing Conditions and the No Action Alternative, to levels that would be less than significant." The brief sensitivity analyses are	Please see Master Response 14 related to water quality as well as modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS..

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		not full model runs and were not even carried out for the preferred alternative configuration and operations. The CEQA requirement to avoid or mitigate significant adverse impacts requires more than an expectation that as yet specified habitat restoration will not result in significant adverse water quality impacts. The full, albeit flawed, model runs for Alternative 4 clearly indicate the impacts of habitat restoration on water quality at Barker Slough and in Suisun Marsh. The habitat restoration to be done as part of WaterFix and eventually as part of EcoRestore must be analyzed in the environmental documentation from the proposed WaterFix project and disclosed, not piecemealed and postponed. A new Draft EIR/EIS must be prepared that establishes a best estimate of the habitat restoration under WaterFix, and as part of the Cumulative Analysis for EcoRestore, and full model runs and analysis of the water quality impacts analyzed and disclosed. The new Draft EIR/EIS must then be released for public review and comment.	
2502	71	Page ES-27, Line 36 Because Alternatives 4A, 2D, and 5A were not fully modeled for the RDEIR/SDEIS, it is not possible to be certain that they would not result in significant impacts for electrical conductivity related to objective exceedance in the Sacramento River at Emmaton, or would not result in substantial degradation in the western Delta due to increased chloride concentrations, or would have less adverse water quality effects in the western Delta related to EC, or would have fewer exceedances of the fish and wildlife EC objective between Prisoners Point and Jersey Point. The same applies to speculation regarding bromide concentration impacts at Barker Slough (Page ES-28, Line 18). The RDEIR/SDEIS contains inadequate information to support this speculation regarding water quality impacts. A new Draft EIR/EIS must be prepared that models, analyzes, discloses and avoids or mitigates the impacts of the new alternatives and habitat restoration on water quality in the western Delta. The new Draft EIR/EIS must then be released for public review and comment.	Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS. Please see Master Response 14 related to water quality.
2502	72	Page 1-5, Line 34 The RDEIR/SDEIS discusses State CEQA Guidelines § 15088.5 which provides examples of disclosure that constitute "significant new information" for purposes of requiring recirculation of a revised EIR. Because the WaterFix RDEIR/SDEIS is so fundamentally and basically inadequate and conclusory in nature, meaningful public review and comment has been precluded. As found by the Delta Independent Science Board (September 30, 2015 review comments), the RDEIR/SDEIS is "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists, and the broader public." There are also feasible project alternatives considerably different from the two types of alternatives previously analyzed that would clearly lessen the environmental impacts of the proposed WaterFix project, but the project proponents have declined to consider or adopt them. Project components that increase Delta flows to restore and sustain fish populations (2010 Delta Flow Criteria), new storage to allow new water to be captured, stored, and conveyed to the California Aqueduct and Delta Mendota Canal, levee strengthening to protect the Delta and export water supply and water quality, and actions to reduce demand for water from the Delta should have been considered as part of a holistic solution. Most of these are identified in the July 2014 California Water Action Plan which DWR helped prepare, and some are required by the 2009 Delta Reform Act.	15 alternatives and 3 additional subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively. Four major alignments have been included in the EIR/EIS: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/EIS and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. A description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4. Please refer to Master Response 6 for additional details on demand management Please refer to comment letters 1448 and 2546 to see responses to the Delta Independent Science Board's comments. Please see responses to the Delta Independent Science Board comments on the 2013 Draft EIR/EIS and 2013 Draft BDCP which are included in responses to Comment Letter 1448 submitted by the Delta Stewardship Council. Comment Letter 1448 includes the comments submitted on May 15, 2014 by the Delta Independent Science Board. Please see responses to the Delta Independent Science Board comments on the 2015 RDEIR/SDEIS which are included in responses to Comment Letter 2546 submitted by the Delta Stewardship Council. Comment Letter

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		A new revised Draft EIR/EIS must be prepared that models, analyzes, discloses and avoids or mitigates the impacts of these feasible project components that will help rather than hinder achievement of the coequal goals. The new Draft EIR/EIS must then be released for public review and comment.	2546 includes the comments submitted on September 30, 2015 by the Delta Independent Science Board.
2502	73	Page 1-20, Line 35 San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Water Quality Control Plan). The 2009 Delta Reform Act states that an order by the State Water Resource Control Board approving any change petitions for the proposed project shall include appropriate Delta flow criteria and shall be informed by the analysis performed in Section 85086 of the Water Code (Cal. Water Code § 85086(c)(2)). The intent of the 2009 Delta Reform Act was that development of the BDCP and WaterFix project alternatives would also be informed by the Delta flow criteria developed by the SWRCB and Department of Fish and Wildlife. It is not relevant to the environmental review in the RDEIR/SDEIS whether it would be fully or only partially responsible for meeting new increased flow requirements, only that the flows in the Delta under the proposed project alternatives be consistent with the 2010 Delta Flow Criteria. The RDEIR/SDEIS is totally inadequate because it fails to present alternatives compatible with, and including, increased Delta flow requirements consistent with the 2010 Delta Flow Criteria as required by State statutes. The legal reasoning for this is contained in the September 29, 2015 letter from Natural Resource Defense Counsel et al. sent to Tom Howard at the SWRCB (footnote 1: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/early_petition_comments/docs/nrdc_obegi093015.pdf). This letter is hereby incorporated into the County's comments by reference. A new Draft EIR/EIS must be released that analyses and discloses the environmental benefits and impacts of alternatives that incorporate increased Delta flow requirements. The new Draft should then be released for public review and comment.	As described in Appendix 3A of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta in January to June to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights.
2502	74	Page 1-35, Line 4 1.4.2 Additional Alternatives The RDEIR/SDEIS states that other than revisions to Alternative 4 and new sub-alternatives, Alternatives 4A, 2D, and 5A, "no other alternatives are included in the RDEIR/SDEIS because the original 15 action alternatives, along with Alternatives 4A, 2D, and 5A and the no action/no project alternative, meet CEQA and NEPA requirements to present and consider a reasonable range of alternatives to the proposed action." This is completely false. Of those 18 alternatives, only one is substantially different than the other, i.e., Alternative 9 for isolated through-Delta conveyance. The other 17 alternatives are merely variations on the same theme, a Peripheral Canal-like configuration of new intakes in the north Delta on the Sacramento River near Hood, with twin tunnels (rather than a single open channel) to convey the water to Clifton Court Forebay in the south Delta. The 18 alternatives fail to achieve the coequal goals, fail to contribute to solving California's urgent water and ecosystem problems, and do not enough meet the lead agencies' needs. The range of alternatives (i.e., two) is not reasonable and none of the alternatives analyzed	Since 2006, the proposed has been developed based on best available science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. Please refer to Master Response 4 for additional details on the selection of alternatives and compliance with CEQA and NEPA. Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) Please see Master Response 3 and Appendices 3A and 3I with regard to consistency with the Delta Reform Act. Alternatives 7 and 8 in the EIR/EIS reflect flow criteria that would affect SWP and CVP water rights only.

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		are viable. A new Draft EIR/EIS must be prepared that analyses new viable alternatives that will help achieve the coequal goals. The increased Delta flow requirements in SWRCB alternative (4H3 discussed in Appendix B), or something similar, must be incorporated into at least some of these alternatives. The new Draft must model, analyze, disclose and avoid or mitigate the impacts of these new alternatives. The new Draft EIR/EIS must then be released for public review and comment.	
2502	75	Page 2-6, Line 31 The sensitivity analyses conducted by the lead agencies are interesting but were performed at late long term (2060) rather than early long term (2025) which is the chosen future reference time for the WaterFix RDEIR/SDEIS. The sensitivity analyses were based on and relative to earlier modeling of BDCP Alternative 4 at late long term. This alternative is very different than the WaterFix preferred alternative and the earlier BDCP modeling has been determined to be flawed and the CALSIM II and DSM2 models have since been updated. The sensitivity analyses did not include these updates and corrections. A new Draft EIR/EIS must be prepared that incorporates full model runs for the alternatives. The statewide importance of the proposed project and high level of controversy requires that the modeling results be disclosed in a new Draft rather than slipped into a Final EIR/EIS leaving little chance for serious regulatory agency and public review and discussion. The new Draft should then be released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.
2502	76	Page 2-8, Line 19 The RDEIR/SDEIS states that the "SWP and CVP operations have relatively little influence on salinity levels at these locations, and the elevated salinity in south Delta channels is affected substantially by local salt contributions discharged into the San Joaquin River downstream of Vernalis." This is not correct. The SWP and CVP control operations in the Delta to maintain Delta water quality and they, therefore, control the quality of the water exported to farms in the San Joaquin Valley. Some of this water ends up as agricultural return flows in the San Joaquin River. This is acknowledged on page 8-227 of the RDEIR/SDEIS: "Chloride concentrations would be reduced under all of the H1-H4 Scenarios in water exported from the Delta to the CVP/SWP Export Service Areas, thus reflecting a potential improvement to chloride loading in the lower San Joaquin River." This statement was intended to highlight possible benefits of the proposed project, but also acknowledges that the SWP and CVP do control to some extent the water quality at Vernalis. The CVP also controls operation of Friant Dam and New Melones Dam on the Stanislaus River, both of which can and should be used to control water quality in the San Joaquin River and at Vernalis. The high salinities in the south Delta and the San Joaquin River downstream of Vernalis are affected by operations of both the CVP and SWP. By maintaining higher Delta outflows and San Joaquin flows (as is being considered by the State Water Resource Control Board), the CVP and SWP can and should improve the quality of water diverted onto south and central Delta farms and avoid exceedances of the Old River at Tracy Bridge EC objective for the protection of agricultural beneficial uses and the other south Delta agricultural water quality objectives. The DSM2 water quality model must be revised to better simulate water qualities in the south and central Delta and then be used to analyze new WaterFix alternatives involving increased Delta outflows and San Joaquin flows. A new Draft EIR/EIS should then be prepared and released for public review and comment.	The term "SWP and CVP operations" in the text cited in the comment part of a sentence that refers to Section 8.1.3.7, Salinity and Electrical Conductivity, in the Environmental Setting/Affected Environment of Chapter 8, Water Quality. This sentence is referring to CVP and SWP Delta water supply operations effects on south Delta water quality, in terms of hydrodynamic effects, not water exported to the San Joaquin River. As noted by the commenter, however, the assessment acknowledges the potential for export water quality to affect San Joaquin River inflow water quality. The DSM2 model represented the best available modeling tool at the time of EIR/EIS preparation; It is not necessary to revise the model or EIR/EIS. Please refer to Master Response 14 related to water quality and salinity. The alternatives considered in the EIR/EIS were developed in response to the project objectives and purpose and need (see Chapter 2 of the EIR/EIS). With regards to operational criteria, please see Master Response 28.

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2502	77	Page 2-8, Line 2-9 It is not acceptable to merely anticipate that the new alternatives 2D, 4A, and 5A, will contain much lower acreage of tidal restoration, and therefore the new alternatives will not have significant impacts with respect to EC and chloride in Suisun Marsh. A range of reasonably expected habitat restoration projects and acreages in the north Delta and Suisun Marsh under WaterFix and EcoRestore must be analyzed using full detailed model runs to quantify and disclose the potential significant adverse impacts to water quality in this region. A new Draft EIR/EIS must then be prepared and released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 related to Water Quality and Master Response 30 regarding Modeling.
2502	78	Page 2-10, Line 1 Climate change assumptions will alter the timing and magnitude of unimpaired runoff estimates. The RDEIR/SDEIS notes that 3 of the 16 water years in the simulation change their type in the late long term as a result of climate change. However, with the climate change it will also be necessary to change the form of the Sacramento 40-30-30 index. The first 30% represents the April-July runoff due to melting of the snow pack. With less snow pack in the future, that will be less representative of the water supply availability. A smaller percentage, say 20% might be more appropriate. Similarly, with more intense runoff, more flood control storage space will be needed and carryover storage from the previous water year may also be less representative of water supply. The Sacramento index in the future may need to be changed to, say, 60-20-20. Any classification of wet, normal and dry years in the future should retain the original State Water Resource Control Board percentages: 30% wet, 20% above normal, 20% below normal, 15% dry and 15% critical.	The definition of the Sacramento River Index is based upon Decision 1641. These assumptions are included in both the action alternatives and the No Action Alternative, as well as Existing Conditions. The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the No Action Alternative to define the effects of the action alternatives without effects related to climate change, sea level rise, and population growth that would occur with or without the action alternatives. Please see Master Response 19 related to Climate Change and GHG. Please see Master Response 14 related to Water Quality. Please see Master Response 30 regarding Modeling.
2502	79	Page 2-13 The RDEIR/SDEIS claims that "it is now known that the cause of the modeled increases in bromide in Barker Slough, which was driving the impact determinations for almost all alternatives, is assumptions regarding CM4 implementation, not operations in CM1." The RDEIR/SDEIS fails to perform full model runs to determine whether this is correct. It is also not sufficient to speculate that "because the new alternatives (2D, 4A, and 5A) contain a lower acreage of tidal restoration, significant impacts with regards to bromide are not expected under these alternatives." A new Draft EIR/EIS must be prepared that performs full model runs to analyze the range of possible habitat restoration that will occur under WaterFix and EcoRestore to determine the actual water quality changes when restoration is reduced and disclose whether the significant water quality impacts indeed shift from drier years to wetter years. The new Draft EIR/EIS must then be released for public review and comment	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling.
2502	80	Page 4.1-1, Line 35 The proposed new WaterFix conveyance facilities will not "improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability." Implementing the conveyance facilities alone will not "help resolve many of the concerns with the current south Delta conveyance system" and would not "help reduce threats to endangered and threatened species in the Delta."	Please see Master Response 28 regarding operational criteria and Master Response 17 for information regarding the effects of operational criteria on fish.

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		As proposed in the RDEIR/SDEIS, the new dual conveyance system would increase exports in dry periods and fail to regularly capture more water for export in wet months (see Attachment C to this letter). It is therefore completely false to claim that the new conveyance system will "align water operations to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with state-of-the-art fish screens, thus reducing reliance on south Delta exports." A new Draft EIR/EIS must be prepared that honestly assesses, clearly discloses and honestly characterizes the proposed project. The new Draft should then be released for public review andcomment.	
2502	81	Page 4.1-10 The D-1641 export/inflow (E/I) ratio calculation was designed to protect fish from the significant adverse impacts of the inadequately screened SWP and CVP export intakes in the south Delta. Those impacts include entrainment of fish, drawing fish out of the Sacramento River system into the south Delta, and general ecosystem impacts that result from diverting too much of the inflow to an estuary. The new north Delta intakes will also impact the health of the Sacramento-San Joaquin Delta estuary by diverting inflow that otherwise would be available for fish, to restore water quality and otherwise reduce the impacts of Other Stressors. The SWRCB export inflow ratio must remain as defined in D-1641. A new Draft EIR/EIS must be prepared that analyze alternatives that comply with the State Water Resource Control Board's export/inflow standards as well as the existing U. S. Army Corps of Engineers limits on inflow to Clifton Court and the San Joaquin inflow to export ratios in the biological opinions. Additional full model runs could still be included to disclose individually the impacts to the Delta ecosystem and water quality if those legal requirements were not met. The new Draft must then be released for public review and comment.	The Export/Inflow ratio requirements used in most of the alternatives in the Draft BDCP EIR/EIS were defined as in the State Water Resources Control Board Decision 1641 (developed without the concept of the north Delta intakes) with the Exports defined at the south Delta intakes, and the inflows defined at a location downstream of the proposed north Delta intakes. The sensitivity analysis results included more than the long-term average values presented in Appendix 5A Section D.10.1.
2502	82	Page 4.2-4, Line 14 Change in Delta Outflow The increase in Delta outflow in September and October in wet and above normal years is primarily due to increased outflow to meet Fall X2. However, as discussed in Attachment C to this letter, the outflows assumed to be required to meet Fall X2 with sea level rise are much higher than existing values. The justification for these high outflows needs to be included in a new Draft EIR/EIS, along with detailed plots of EC at Mallard Island and Collinsville during the Fall for each case. The new Draft must then be released for public review and comment.	The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the No Action Alternative to define the effects of the action alternatives without effects related to climate change, sea level rise, and population growth that would occur with or without the action alternatives. Because the assumptions related to operations with Fall X2 criteria are included in the action alternatives and the No Action Alternative, the incremental changes related to the implementation of the action alternatives would be similar even if Fall X2 operational assumptions were changed. Please see Master Response 14 related to water quality. Please see Master Response 28 related to operational criteria.
2502	83	Page 4.2-18 (see also Page 4.3.4-1) 4.2.7 Water Quality The RDEIR/SDEIS states that: "In general, the significance of this difference is the assessment of bromide, chloride and electrical conductivity (EC) for the No Action Alternative (ELT), relative to Existing Conditions, likely underestimates increases in bromide, EC, and chloride that could occur, particularly in the west Delta. Nevertheless, there is notable uncertainty in the results of all quantitative assessments that refer to modeling	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. The EIR/EIS analysis is based upon comparison of conditions under the Proposed Project and other action alternatives to conditions under the Existing Conditions and the No Action Alternative. The basis of the hydrologic and water quality models is the CALSIM II model, a monthly model that incorporates assumptions

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		results, due to the differing assumptions used in the modeling and the description of the No Action Alternative (ELT)." Because of the statewide importance of developing a Delta solution that achieves both coequal goals, the controversy surrounding the WaterFix project, the extremely high cost of the new intakes and tunnels, it is very important that the models and modeling be refined, e.g., by using daily rather than monthly time steps in the CALSIM II model, and the differing assumptions be reconciled to reduce the "notable uncertainty." A great deal of uncertainty was purposely created by choosing to use "brief sensitivity analyses" based on earlier flawed modeling runs instead of performing full model runs. A new Draft EIR/EIS must be prepared that performs full model runs for all alternatives with refined models. The new Draft EIR/EIS must then be released for public review and comment.	about daily operational changes. The hydrologic and water quality model results should not be used in a predictive manner to determine absolute values. The electrical conductivity analysis is based upon the DSM2 model that uses the monthly model results from CALSIM II and disaggregates the values using historical patterns for smaller time steps and assumptions for tidal conditions. These types of models are the most appropriate to analyze potential changes due to different operational assumptions for the SWP and CVP to provide information to the DWR and Reclamation decision makers who will select an alternative to meet the project objectives and purpose and need (see Chapter 2 of the EIR/EIS. However, as described in Appendix 5A of the BDCP EIR/EIS, these models cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate basic changes between alternatives or scenarios and understand the sensitivity of changes that could occur from the Existing Conditions and the No Action Alternative. The EIR/EIS was prepared in a manner to comply with the 2009 Delta Reform Act, including sections that are included in this comment, as described in Appendices 3A and 3I of the EIR/EIS. Please see Master Response 31. Please see Master Response 30 related to modeling. The No Action Alterative ELT modeling assumptions allow for direct comparison to Alternatives 4A, 2D, and 5A to isolate effects due the alternative separate from effects due to climate change, as described in Appendix 5A, Section A of the EIR/EIS.
2502	84	Page 4.3.4-1 4.3.4 Water Quality We agree that "there is notable uncertainty in the results of all quantitative assessments that refer to modeling results, due to the differing assumptions used in the modeling and the description of Alternative 4A and the No Action Alternative (ELT)." A new Draft EIR/EIS must be prepared that includes full model runs for each alternative. The new Draft EIR/EIS must then be released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.
2502	85	Page 4.3.4-17, Line 6 (see also Page 4.3.4-17, Line 14) The RDEIR/SDEIS speculates that "sensitivity analyses conducted of Alternative 4 Scenario H3 without restoration areas indicated lower chloride levels in the western Delta than with the restoration areas. It is thus likely that modeling of Alternative 4A that does not include restoration areas would show lower levels of chloride at Antioch in April, and at Contra Costa Pumping Plant #1 in September and October than is shown herein using the Alternative 4 (ELT) modeling." The current RDEIR/SDEIS is woefully inadequate. A new Draft EIR/EIS must be prepared that relies on full revised model runs rather than sensitivity analyses and speculations of what is likely or “not expected.” The new Draft EIR/EIS must then be released for public review and comment.	The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	86	Page 4.3.4-24, Line 4 Delta The RDEIR/SDEIS notes the significant differences between Alternative 4A and the modeling conducted for Alternative 4 in the early long term. The RDEIR/SDEIS also claims "there are several factors related to the modeling approach that may result in modeling artifacts that	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality

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		show objective exceedance, when in reality no such exceedance would occur. The County agrees with the subsequent statement that: "The result of all of these factors is that the quantitative modeling results presented in this assessment is not entirely predictive of actual effects under Alternative 4A, and the results should be interpreted with caution." The rush to release the RDEIR/SDEIS without performing full model runs of the new alternatives or correcting the model runs for the earlier BDCP alternatives is unacceptable, inconsistent with good science, and contrary to the requirements of CEQA and NEPA. It is not acceptable to presenting tables of water quality impacts in Appendix B for Alternative 4A at early long term when no such analyses were actually performed. A new Draft EIR/EIS must be prepared that relies on full revised model runs rather than sensitivity analyses and speculation. The new Draft EIR/EIS must then be released for public review and comment.	assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	87	Page 5-2 5.1.2.2 California Water Action Plan The WaterFix and BDCP alternatives do not contribute to achievement of the coequal goals. New alternatives must be developed that incorporate actions outlined in the January 2014 California Water Action Plan, such as "expand water storage capacity and improve groundwater management." A new Draft EIR/EIS must be prepared that analyses these new alternatives and fully discloses, mitigates or avoids any adverse environmental impacts. The new Draft EIR/EIS must then be released for public review and comment.	The Proposed Project, identified in the RDEIR/SDEIS, no longer includes a HCP/NCCP and per policy set forward in the Delta Reform Act will now follow a different path to demonstrate consistency with the Delta Plan. For more information on the Proposed Project's compatibility with the Delta Reform Act and the Delta Plan see Master Response 31 and Appendices 3A and 3I of the EIR/EIS, and Appendix G. The California Water Plan's strategies are to be considered tools in a toolkit for water managers to choose from with the understanding that regional and local water managers have the best perspective on which strategy or strategies are most cost-effective and productive for meeting the needs and priorities of their region. Accordingly, the EIR/EIS does not include alternatives (including several that were proposed during the scoping process) that are equivalent to a statewide water plan or required actions beyond the scope of the Proposed Project. Many of the alternatives proposed for inclusion in the EIS/EIR but ultimately rejected because they address issues or apply to regions outside the Bay Delta, are nevertheless pertinent to stewardship of California's water resources and thus are appropriate for consideration in other regulatory or legislative contexts. Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the proposed project.
2502	88	Page 5-2, Line 39 The RDEIR/SDEIS states that: "Delta outflow requirements also are considered in the determination of the ability to divert water at the SWP and CVP south Delta intakes to minimize reverse flow conditions. Reverse flow conditions in Old and Middle Rivers occur when exports exceed the amount of inflow from the San Joaquin River. Limiting reverse flows in Old and Middle Rivers reduces fish exposure and entrainment at the south Delta intakes." The WaterFix and BDCP alternatives fail to minimize reverse flows sufficiently to restore and sustain key fish species (see Attachment C to this letter). In addition, the WaterFix proponents propose blocking the head of Old River for extended periods. The significant historical reduction in San Joaquin inflows to the Delta is also a major contributor to reverse flows in the south and central Delta. Blocking what little inflow there is from reaching the south Delta will further exacerbate reverse flows and increase entrainment of fish. A new Draft EIR/EIS must be prepared that analyses alternatives that will actually minimize reverse flows in all months to protect fish species including not yet threatened resident	The purpose and need of the proposed project was to minimize the effects of the action alternatives as compared to the No Action Alternative, and not to eliminate reverse flows. Changes to aquatic resources under Alternative 4A and the No Action Alternative and Existing Conditions are described in Chapter 11 of the EIR/EIS.

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		species. The new Draft must fully disclose, mitigate or avoid any adverse environmental impacts. The new Draft EIR/EIS must then be released for public review and comment.	
2502	89	Page 5-38 Table 5.2.2.1-1. Effects on Water Supplies from Additional Plans, Policies, and Programs Considered for Cumulative Analysis The proposed WaterFix preferred alternative will not be viable once the State Water Resource Control Board has established higher flow requirements in the Delta under Phase 1 and 2. The very expensive new intakes and twin tunnels will not be able to be used as much as assumed in the RDEIR/SDEIS and these facilities will become a stranded asset. A new Draft EIR/EIS must be prepared that assumes higher SWRCB flow requirements are in place and develop alternatives that are viable under those conditions, and also contribute to achieving the coequal goals, and improving water quality in the Delta. The new Draft must fully model, disclose, and mitigate or avoid any adverse environmental impacts. The new Draft EIR/EIS must then be released for public review and comment.	As described in Chapters 5 and 6 of the EIR/EIS, the State Water Resources Control Board is conducting a current program to update the Bay-Delta Water Quality Control Plan. Since this program is still under development and the potential outcomes are not known at this time, this program is not included in the analysis. Following completion of the updated Bay-Delta Water Quality Control Plan, SWP and CVP operations would need to be reviewed to determine if the operations continued to comply with the new regulations. Potential changes under future updates of the Bay-Delta Water Quality Control Plan are considered under cumulative impacts. Please see Master Response 14 related to Water Quality. Please see Master Response 9 relating to cumulative impacts.
2502	90	Page 5-54 and elsewhere The RDEIR/SDEIS makes a number of claims regarding future projects and how they will or will not impact the Delta. Many of these future projects are included in the California Water Action Plan and are necessary components for a sustainable solution to the problems of the Delta ecosystem and California's water supply reliability. The WaterFix alternatives fail to meet the needs of the project and will hinder rather than help meet the needs of California. New alternatives must be developed that incorporate these necessary elements of a viable solution, such as new storage. The cumulative analysis can instead include other very foreseeable actions such as shifting the compliance location of the Emmaton standard further inland. A new Draft EIR/EIS must be prepared that includes alternatives that include the portfolio of elements described in the California Water Action Plan and suggested by many commenters on the BDCP. The new Draft must fully model these new alternatives and disclose, and mitigate or avoid, any adverse environmental impacts. The new Draft EIR/EIS must then be released for public review and comment.	By establishing a point of water diversion in the north Delta, the project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Appendix 1C of the Final EIR/EIS, Water Demand Management, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more information on demand management and Master Response 9 related to cumulative analysis. For more information on why water storage was not considered as part of the proposed project please refer to Master Response 37 (Storage) and Appendix 1B, Water Storage, EIR/EIS. Please refer to Master Response 4 for additional details on the selection of alternatives and Master Response 2 for additional details on the project purpose and need.
2502	91	Page 5-78, Line 23 Electrical Conductivity The RDEIR/SDEIS claims that: "Implementation of facilities operations and maintenance under these action alternatives, along with Mitigation Measure WQ-11, would not be expected to contribute substantially to this adverse cumulative condition for electrical conductivity (EC), because no additional exceedance of Bay-Delta Water Quality Control Plan EC objectives would be expected, and substantial long-term degradation with respect to EC would be avoided." Degradation of water quality in the Delta cannot be judged in terms of exceedance of the State Water Resource Control Board's Bay-Delta water quality standards. Significant impacts can occur to urban and agricultural water uses even when water quality standards are not	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS. Degradation of water quality and potential effects to beneficial uses were considered separately from exceedance of water quality standards, via address of the thresholds #3 and #4 in Section 8.3.2.3, Effects Determinations, in Chapter 8, Water Quality, of the Final EIR/EIS. Mitigation measure WQ-11 is provided to mitigate this degradation to a less than significant impact.

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		exceeded. Farmers in the north Delta, e.g., have developed farming practices and crops that rely on very fresh water. Increasing salinities in this area will have a significant adverse impact on this senior beneficial use, even if SWRCB chloride standards are not exceeded. The environmental documentation must be revised to acknowledge that increasing salinities (by say more than 5%) can still represent a significant adverse water quality impact.	
2502	92	Appendix A, Chapter 8, Page 8-53 Real-Time Operations of the SWP and CVP The RDEIR/SDEIS states that: "Environmental conditions arise that cannot be foreseen or simulated in the model that can affect compliance with water quality objectives. These include unpredictable tidal and/or wind conditions, gate failures, operational needs to improve fish habitat/conditions, and prolonged extreme drought conditions, among others. At times, negotiations with the State Water Resources Control Board occur in order to effectively maximize and balance protection of beneficial uses and water rights. These activities are expected to continue to occur in the future. Thus, it is likely that some objective exceedances simulated in the modeling would not occur under the real-time monitoring and operational paradigm that will be in place to prevent such exceedances." The 2009 Delta Reform Act and the State and Federal coequal goal statutes changed the responsibilities of the State Water Resource Control Board, DWR, Reclamation and other agencies from merely balancing beneficial uses to helping to achieve the coequal goals. The WaterFix RDEIR/SDEIS is inadequate because neither of the two types of alternatives contribute to achieving either of the coequal goals. The SWRCB now has the responsibility of setting higher flow requirements for the Delta and reducing exports from the Delta in drier periods, which will render the new north Delta intakes and twin tunnels virtually inoperable and a stranded asset. The SWRCB permits for the proposed project should also include terms that stop use of the new north Delta intakes if water quality standards are being exceeded. It is not sufficient to speculate "it is likely that" some exceedances will not occur in reality. The additional flows or reduced exports necessary through real time operations to ensure the objectives are met, will increase exports and reduce flows in subsequent months which could cause adverse impacts that are not disclosed in the RDEIR/SDEIS. The model analyses performed for the RDEIR/SDEIS environmental documents are so flawed and inadequate that it is also highly likely that actual WaterFix operations will be very different than simulated and other factors such as the amount and location of tidal habitat restoration will have greater adverse effects. It is then highly likely that objective exceedances will occur with the project, despite any real-time operations that might be in place. The County requests that Delta interests be represented in an official, full voting, capacity, on any adaptive management and real-time operations entities that might be established for the proposed project. This should not be left under the water project and export contractor control. The RDEIR/SDEIS is inadequate because it fails to analyze and disclose, using actual water quality model runs, the significant adverse impacts of the proposed project and provide	Please refer to Master Response 3 and Appendices 3A and 3I in the EIR/EIS regarding the Delta Reform Act. For more information on the water quality analyses and limitations of the modeling, please see Chapter 8, FEIR/EIS, and associated appendices. For information on the Collaborative Science and Adaptive Management Program (CSAMP), including participating parties and the decision making process, please see Chapter 3. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. Please note that the new proposed project, Alternative 4A, no longer includes large-scale habitat restoration. Instead, restoration would be implemented to offset impacts associated with construction and operations of the proposed project. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.

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		reasonable estimates of the frequency of water quality objective exceedances, and disclose how the project will likely operate in real time. A new Draft EIR/EIS must be prepared that carries out full modeling analyses of alternatives capable of helping to achieve both coequal goals and improve water quality in the Delta. The Draft EIR/EIS should also refine the Real Time Operations Team proposal and other management entities to include a full-voting representative from the Delta Counties and urban and agricultural water agencies in the Delta. The new Draft EIR/EIS should then be released for public review and comment.	
2502	93	Appendix A, Chapter 8, Page 8-54 et seq. The RDEIR/SDEIS uses two methods to estimate chloride and bromide concentrations from DSM2 simulations of Electrical Conductivity: Mass-Balance Method; and Regression Method for Chloride and Bromide. The latter approach uses two different regression equations depending upon whether seawater intrusion dominates (typically during low Delta outflow periods) or whether agricultural drainage conditions dominate (typically during wet periods). Sometimes the chloride and bromide concentration are influenced by both sources of salinity. The DSM2 model can separately simulate the contributions to water quality from different sources of inflow to the Delta (seawater, Sacramento, Yolo, San Joaquin, eastside tributaries, and local agricultural drainage). This is often referred to as "fingerprinting." The fingerprinting data could be converted for each source using the appropriate EC to chloride regression equation and summed to estimate the chloride and concentrations. That would be more accurate than guessing which regression equation applies at each Delta location.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	94	Appendix A, Chapter 8, Page 8-67, Line 31 The RDEIR/SDEIS states: "Some of the electrical conductivity objectives are dependent on water year type. It must be noted that 3 of the 16 water years in the simulation change in the late long term, as compared to Existing Conditions, as a result of climate change." Climate change assumptions will alter the timing and magnitude of unimpaired runoff estimates. Because of climate change, it will also be necessary to change the form of the Sacramento 40-30-30 index. The first 30% represents the April-July runoff due to melting of the snow pack. With less snow pack in the future, that will be less representative of the water supply availability. A smaller percentage, say 20% might be more appropriate. Similarly, with more intense runoff, more flood control storage space will be needed and carryover storage from the previous water year may also be less representative of water supply. The Sacramento index in the future may need to be changed to, say, 60-20-20. The classification of wet, normal and dry years in the future should still retain the original State Water Resource Control Board percentages: 30% wet, 20% above normal, 20% below normal, 15% dry and 15% critical. That will ensure, e.g., that the transition from below normal to above normal actual occurs at the 50-percentile.	The definition of the Sacramento River Index is based upon Decision 1641. The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the No Action Alternative to define the effects of the action alternatives without effects related to climate change, sea level rise, and population growth that would occur with or without the action alternatives. Please see Master Response 19 related to Climate Change.
2502	95	Appendix A, Chapter 8, Page 8-71, Line 30 The RDEIR/SDEIS states that "there are several factors related to the modeling approach that may result in modeling artifacts that show objective exceedance, when in reality no such exceedance would occur in reality." This is another example of unsubstantiated	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing

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		optimism on behalf of the project proponents. The limited nature of the sensitivity analysis modeling runs and the major flaws in the Draft EIR/EIS runs on which they were based, also means that more exceedances could occur in the future than shown by the sensitivity analyses. Rather than speculating, CEQA and NEPA statutes require that full model runs be performed to identify, disclose, and avoid or mitigate all significant adverse impacts of the project such as degradation of water quality and exceedences of water quality objectives. A new Draft EIR/EIS must be prepared based on full model runs and released for public review and comment.	Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the No Action Alternative to define the effects of the action alternatives without effects related to climate change, sea level rise, and population growth that would occur with or without the action alternatives. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	96	Appendix A, Chapter 8, Page 8-110, Line 21 The RDEIR/SDEIS correctly notes that 'the timing, location, and specific design of habitat restoration will have effects on Delta hydrodynamics, and any deviations from modeled habitat restoration and implementation schedule will lead to different outcomes." A new Draft EIR/EIS must be prepared that makes reasonable estimates of the timing, magnitude and location of habitat restoration to be implement by both WaterFix and EcoRestore and models and discloses the significant adverse impacts of these actions on water quality, fish and other beneficial uses. It is not sufficient to simply argue, e.g., with respect to Barker Slough water quality, that 'the estimates are not predictive of the bromide levels that would actually occur in Barker Slough or elsewhere in the Delta." This comment also applies to other sections within the RDEIR/SDEIS that refer to bromide, chloride and electrical conductivity concentration increases at certain locations that could be substantial, depending on siting and design of restoration areas. The new Draft EIR/EIS must avoid or mitigate all significant adverse impacts and then be released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS. The Final EIR/EIS includes mitigation for significant/adverse impacts to bromide, chloride, and electrical conductivity (EC) for the action alternatives in Mitigation Measures WQ-5 (bromide), WQ-7 (chloride), and WQ-11 (EC), and for impacts to EC for Alternatives 4A, 2D, and 5A in Mitigation Measure WQ-11.
2502	97	Appendix A, Chapter 8, Page 8-219 The RDEIR/SDEIS discusses the effects of site-specific restoration areas proposed under CM4 on bromide concentrations in Barker Slough. The lead agencies state: "It is anticipated that these efforts will be able to reduce the level of projected increase, though it is unknown whether it would be able to completely eliminate any increases." The RDEIR/SDEIS further states: "If sufficient operational flexibility to offset bromide increases is not practicable/feasible under Alternative 4 operations, and/or siting and design of restoration areas cannot feasibly reduce bromide increases to a less than significant level without compromising the benefits of the proposed areas, achieving bromide reduction pursuant to this mitigation measure would not be feasible under this alternative." If Mitigation Measure WQ-5 (Avoid, Minimize, or Offset, as Feasible, Adverse Water Quality Conditions; Site and Design Restoration Sites to Reduce Bromide Increases in Barker Slough) is insufficient to fully mitigate the significant adverse bromide impacts in the Barker Slough region, additional mitigation measures must be developed and incorporated into a new Draft EIR/EIS.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.
2502	98	Appendix A, Chapter 8, Page 8-225 303(d) Listed Water Bodies - Relative to No Action Alternative The RDEIR/SDEIS states that: "Modeling results indicated that monthly average chloride	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing

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		concentrations at source water channel locations for the Suisun Marsh (Appendix 8G, Figures Cl-5, Cl-7 and Cl-8) would increase substantially in some months during October through May compared to the No Action Alternative conditions, but sensitivity analyses suggest that operation of the Salinity Control Gates and restoration area siting and design considerations could reduce these increases. However, the chloride concentration increases at certain locations could be substantial, depending on siting and design of restoration areas. Thus, these increased chloride levels in Suisun Marsh are considered to contribute to additional, measureable long-term degradation in Suisun Marsh that potentially would adversely affect the necessary actions to reduce chloride loading for any total maximum daily load that is developed." It is not sufficient to merely do sensitivity analyses, especially when even the sensitivity analyses indicate that the proposed project will cause significant adverse impacts to water quality in Suisun Marsh. These significant impacts must be avoided or fully mitigated. A new Draft EIR/EIS must be prepared that (a) carries out full model runs of the flows and exports in the Delta and corresponding water quality variations, and (b) incorporates mitigation measures that full mitigate for these avoidable water quality impacts. The new Draft EIR/EIS must then be released for public review and comment.	Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS and Master Response 22 related to Mitigation.
2502	99	Appendix A, Chapter 8, Page 8-227, Line 12 The RDEIR/SDEIS states that "chloride concentrations would be reduced under all of the H1-H4 Scenarios in water exported from the Delta to the CVP/SWP Export Service Areas, thus reflecting a potential improvement to chloride loading in the lower San Joaquin River." This is an attempt by the project proponents to claim additional WaterFix project benefits. However, it is also an acknowledgement that the SWP and CVP can and do affect water quality in the San Joaquin River and at the south Delta agricultural water quality compliance locations. A holistic solution to the current acute problems with the Delta ecosystem and California's water supply must include improved flows in the San Joaquin River, including below Friant Dam, and improvement of water quality in the San Joaquin River and the Delta. Improvements in the San Joaquin watershed should also include new infrastructure to capture storm flows and increase recharge of the severely over-drafted aquifers. Most of these actions are within the control of DWR and Reclamation, and are called for in the January 2014 California Water Action Plan. A new Draft EIR/EIS must be prepared that includes holistic alternatives that not only address the needs of the export contractors but also work to achieve the coequal goals. The new Draft EIR/EIS should then be released for public review and comment.	As described in Chapter 3 and Appendix 3A of the EIR/EIS, alternatives were developed for detailed analyses based upon the project objectives and purpose and need statement (see Chapter 2 of the EIR/EIS). The potential infrastructure projects referenced in this comment would address issues broader than the project objectives and purpose and need statement. However, it is recognized that several of these projects are being considered by DWR, Reclamation, and other agencies; and therefore, are being considered under the cumulative impact analyses in the Final EIR/EIS. The California Water Action Plan five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: http://www.waterplan.water.ca.gov/. Please see Master Response 14 related to Water Quality.
2502	100	Appendix A, Chapter 8, Page 8-228 The RDEIR/SDEIS continues to propose water quality mitigation measures that postpone developing and specifying actual mitigation until after the project is completed. There are no commitments on behalf of the lead agencies that any mitigation will actually be implemented. Mitigation Measure WQ-7 (Conduct Additional Evaluation and Modeling of Increased Chloride Levels and Develop and Implement Phased Mitigation Actions) and Mitigation Measure WQ-7c (Consult with Delta Water Purveyors to Identify Means to Avoid, Minimize, or Offset for Reduced Seasonal Availability of Water That Meets Applicable Water	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS and Master Response 22 related to Mitigation. Please refer to Chapter 8, Water Quality of this Final EIR/EIS. Please refer to Chapter 8, Water Quality and

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		Quality Objectives) are open ended and puts much of the onus on the impacted parties. The significant water quality impacts of the proposed project must be avoided or fully mitigated by the project proponents at no financial or resource cost to the impacted parties. A new Draft EIR/EIS that incorporates measures to avoid or fully mitigate all adverse water quality impacts, and contributes to improvement of water quality in the Delta (Cal. Water Code § 85020) must then be released for public review and comment.	Master Response 14, which addresses water quality issues.
2502	101	Appendix A, Chapter 8, Page 8-237 The revised language in the RDEIR/SDEIS states that: "As discussed in Chapter 5, Water Supply, Section 5.3.1, Methods for Analysis, under extreme hydrologic and operational conditions where there is not enough water supply to meet all requirements, CALSIM II uses a series of operating rules to reach a solution that is a simplified version of the very complex decision processes that SWP and CVP operators would use in actual extreme conditions. Thus, it is unlikely that the Emmaton objective would actually be violated due to dead pool conditions. However, these results indicate that water supply conditions could be either under greater stress or under stress earlier in the year, and levels at Emmaton and in the western Delta may increase as a result, leading to electrical conductivity degradation and increased possibility of adverse effects to agricultural beneficial uses." It does not necessary follow that because the CALSIM II model is not able to handle extreme conditions that exceedances of the Emmaton objective are unlikely. Limitations in the CALSIM II model could result in exceedances being underestimated. Because of the statewide importance of finding a solution to the drastic problems of the Delta and the huge cost of the proposed project, it is imperative that the CALSIM II model be upgraded to better deal with extreme conditions, such as the current drought situation, and to simulate daily rather than monthly time steps. The adverse impacts to agricultural beneficial uses indicated by the results must also be fully mitigated. A new Draft EIR/EIS must be prepared that analyzes project operations using an upgraded CALSIM II model and full model runs for flow and export operations and water quality over the full simulation period, 1922-2003 (or better still, 2014). The new Draft EIR/EIS must then be released for public review and comment.	As described in Appendix 5A of the EIR/EIS, the numerical models cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate overall changes between alternatives as compared to the Existing Conditions and the No Action Alternative. The EIR/EIS evaluates long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The analyses were not conducted to identify specific values or to respond to short-term emergency situations, such as the recent drought. Separate engineering and environmental studies have been and will continue to be prepared when water quality criteria and other regulations are modified in emergencies. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 30 related to Modeling.
2502	102	Appendix A, Chapter 8, Page 8-238 The RDEIR/SDEIS, in revised language, claims that the brief sensitivity analyses performed indicated that many of the exceedances of the south Delta agricultural standards are modeling artifacts, and modeling barrier installation assumptions consistent with historical dry year practices of installing barriers earlier in the year could resolve these additional exceedances. The RDEIR/SDEIS also argues that SWP and CVP operations have relatively little influence on salinity levels at these locations, and the elevated salinity in south Delta channels is affected substantially by local salt contributions discharged into the San Joaquin River downstream of Vernalis. SWP and CVP operations do impact water quality at the south delta agricultural water quality compliance locations. In fact, on page 8-227, Line 12, the RDEIR/SDEIS argues that improvements in the chloride concentrations of water exported from the Delta to the CVP/SWP Export Service Areas reflects a potential improvement to chloride loading in the	The CALSIM II and DSM2 models were operated in a manner to meet water quality objectives of State Water Resources Control Board Decision 1641. These model runs simulate long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. As described in Chapter 3 and Appendix 3A of the EIR/EIS, alternatives were developed for detailed analyses based upon the project objectives and purpose and need statement (see Chapter 2 of the EIR/EIS). It is recognized that several of these projects are being considered by DWR, Reclamation, and other agencies; and therefore, are being considered under the cumulative impact analyses in the Final EIR/EIS. Please see Master Response 14 related to water quality and salinity.

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		lower San Joaquin River. Historical export operations by the SWP and CVP have degraded water quality in the south Delta and that higher salinity water was then exported to farms in the San Joaquin Valley. That, and the failure to maintain instream flows downstream of the CVP's Friant Dam, combined with operation of the CVP's New Melones Dam, has contributed to degraded water quality in the lower San Joaquin River at Vernalis. The salinity of the water diverted onto islands in the south and central Delta by in-Delta farmers is directed affected by seawater intrusion and changes in residence time (controlled by the SWP and CVP) and the quality of the inflow to the Delta at Vernalis (controlled by the CVP and to a lesser extent by the SWP). That influences the salinity of the agricultural discharges back in to the Delta by the in-Delta farmers. Barrier installations by DWR have not always been able to avoid exceedances of the south Delta water quality standards. The SWP and CVP can control and avoid these adverse water quality impacts by improving water quality generally in the Delta and in the San Joaquin River. The State Water Resource Control Board's proposed Delta Flow Criteria and Phase 1 and 2 of the revision of the Water Quality Control Plan will help by increasing Delta and San Joaquin River flows. A new RDEIR/SDEIS must be prepared that avoids or fully mitigates the significant impacts to agricultural water quality in the south Delta, and released for public review and comment.	
2502	103	Appendix A, Chapter 19, Page 19-125 Mitigation Measure TRANS-1c: This section states that to mitigate the transportation impacts of each alternative, project proponents will undertake 'good faith' efforts to enter into mitigation agreements with local jurisdictions to verify the location, extent, timing, and fair share cost to be paid for reducing congestion to the identified roadway segments in the project area. However, the EIR states that "if an improvement that is identified in any mitigation agreement(s) contemplated by Mitigation Measure TRANS-1c is not fully funded and constructed before the project's contribution to the effect is made, an adverse effect (in the form of unacceptable loss of service) would occur." Details of good faith efforts should be identified to ensure that project proponents sufficiently engage with local jurisdictions when attempting to enter into mitigation agreements. Mitigation Measure TRANS-1c: The body of this section has strikethroughs through the term 'enhance capacity,' and is replaced with 'reduce congestion,' to incorporate other congestion reduction strategies. However, the title still says 'Enhance Capacity' and should be replaced as well.	The title of Mitigation Measure TRANS-1c has been modified.
2502	104	General Comments Throughout the DEIR, construction activities, congestion, and other impacts are characterized as temporary. However, given the duration of these activities (5+ years), the intensity of the impacts, and the lasting effect on nearby communities, they should be characterized as permanent. (See Hendler v. United States for the definition of 'permanent.') Since activities are considered permanent, the mitigation measures to be implemented should be more permanent in nature. For example, "Use of flag people or temporary traffic signals/signage as necessary to slow or detour traffic," would not be practical as a	Please refer To Chapter 4, Approach to the Environmental Analysis. Please refer to section 4.25 for additional discussion of temporary vs. permanent impacts.

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		permanent solution.	
2502	105	Level-of-service (LOS) is an entirely inadequate measure of traffic impacts for this project. Extraordinary in its size and scope, this project would incur major and significant traffic impacts that an LOS analysis alone may not identify. A traffic impact analysis that incorporates other methods in addition to LOS that accurately captures the broader traffic impacts of this project may be more appropriate. (See Mejia v. City of Los Angeles, City of Antioch v. the City Council of the City of Pittsburg, and Oro Fino Gold Mining Corporation v. El Dorado County regarding fair argument for significant impacts vs. established traffic standards.)	The criteria and thresholds for traffic analysis and potential impacts were developed as discussed in Section 19.1.2.1 of Chapter 19 of the EIR/EIS, using methodology from the California Department of Transportation Guidelines for Traffic Studies and the Transportation Research Board (TRB) Highway Capacity Manual. Both of these resources are standard references used in the transportation industry to determine potential impacts of a proposed project.
2502	106	In the previous version of the DEIR, it was stated that the project's construction period would be approximately nine years. In Alternative 4A, the duration was changed to five years, but no explanation was given for the drastic shortening of the construction time. It seems unrealistic that a project of this size and complexity could have a construction schedule cut in half without substantial changes or initial errors in the estimate in the schedule. The DEIR should identify the details of the five-year construction schedule and how it was reduced from nine years.	Action alternatives would be implemented in approximately 11-14 years. Please refer to Chapter 3 and Appendix 3C in this Final EIR/EIS regarding construction schedules and construction activities for each proposed facility.
2502	107	General Comments The applicant shall include Contra Costa County early in the planning and design process to coordinate property rights, agreements, and to coordinate this project with the County's adjacent capital improvement projects. DWR must address any impacts that could potentially increase costs or constrain the County's future capital road improvements. The applicant will be required to execute an agreement, in addition to the road encroachment permit, that specifies the land rights to be acquired as well as fiscal compensation to mitigate for increased cost related to bridge and road maintenance. The agreement should identify work to be completed by DWR to address impacts to County facilities or how the County will be compensated for impacts related to disruption during construction. This includes subsequent impacts after construction related to the constraints of operating roadways over bridges or roadways with significant infrastructure bored under existing roadway improvements. Ample time should be provided to execute this agreement(s). The agreement should specify the terms related to the use of county land and the California Department of Water Resources (DWR) responsibility for perpetual maintenance and inspection of the bridge structures and associated approaches that lead up to the bridge. The agreement between DWR and the County must specify the agency responsible for the perpetual operation and maintenance of the bridge, including assumption of all liability. If the County will accept perpetual maintenance and ownership, DWR must address the anticipated increase in maintenance cost that will be experienced by the County. Construction of the bridges and adjacent roadways shall meet County standards and include standard bike lane and pedestrian access that meets the requirements of the Americans with Disabilities Act (ADA). The bridge structures should provide adequate width for ultimate roadway configurations as identified by the Contra Costa County Public Works Department.	Please see Appendix 3B, Environmental Commitments. An environmental permitting coordinator will consult with permitting agencies and local agencies to ensure that the environmental commitments described in the Mitigation Monitoring and Reporting Plan are implemented during project construction and operation.

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2502	108	Appendix 22B in Appendix A Table's 22B-5 through 22B-8 (Appendix 22B) give a full comprehensive list (well over 100 pages) of hundreds of equipment types and their anticipated hours of use for the entire project. However, no information is provided regarding how many of each piece of equipment will be used and where exactly within the Plan Area, other than the type of project they'll be used for (i.e. control structures, pipelines, forebays, etc.). Without this additional detail it is not possible to identify the impacts of the project and the EIR/EIS is therefore inadequate and incomplete.	Appendix 22B, Air Quality Assumptions, summarizes the construction and operational assumptions for the air quality and health risk analysis. The appendix summaries number of daily equipment or vehicle trips, operational hours, and engine characteristics, as applicable. The assumptions are defined by individual phase and construction location (e.g., Clifton Court Forebay). The appendix provides information used to quantify emissions and identify impacts.
2502	109	Chapter 19 of Appendix A, Page 19-122 - Mitigation Measure TRANS-1a The Traffic Mitigation Program (TMP) required under Mitigation Measure Trans 1-a will be "site-specific," and should consolidate the appropriate information from the referenced tables to indicate; 1) an estimate of how a specific site and transportation infrastructure in the vicinity will be affected, 2) by what types of equipment, and 3) to what degree (duration of days/hours, trips). It would not be reasonable to expect the reader to derive this information on their own based on what is presented in the referenced tables.	Guidelines discussed in Chapter 19 are general. Traffic plans will be created specifically for each site prior to the construction period. DWR will be responsible for project management and may contract with one or more construction management firms to assist in ensuring that construction contractors' crews and schedules are coordinated and that the plans and specifications are being followed. DWR will also ensure that the TMPs are implemented prior to beginning construction at a site, including in-water construction sites.
2502	110	Appendix 3C in Appendix A - Construction Assumptions for Water Conveyance Facilities The construction assumptions in Appendix 3C are very broad and do not give an indication as to what degree specific sites will be impacted (i.e. Byron and J4). Again, without this information detail it is not possible to identify the impacts of the project and the EIR is not complete.	The construction assumptions presented in Appendix 3C and the related Conceptual Engineering Report are based upon a preliminary engineering analysis.
2502	111	Chapter 19 of Appendix A, Page 19-123, Line 26 - Mitigation Measure TRANS-1a The DEIR/EIS Mitigation Measure TRANS-1a includes: "Plans to relocate school bus drop-off and pick-up locations if they will be affected during construction." Altering school circulation patterns would have to be reviewed but would generally only be feasible or reasonable on a temporary basis. Again, 9 years of impacts should be treated as permanent. An "avoid" mitigation measure is the only appropriate measure in this case. Compromising a community fixture such as a school on a longer term basis is entirely inappropriate and unacceptable.	During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., pavement conditions) will be conducted to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including county and school districts for construction near schools, as appropriate. Site-specific construction traffic management plans (TMPs) would be developed and included in appropriate encroachment permit applications.
2502	112	Appendix 3B in Appendix A - Environmental Commitments, AMMs, and CMs Appendix 3B does not contain environmental commitments specific to school circulation patterns. Assuming MM TRANS 1-a (develop a Transportation Management Plan) will cover this, consultation with County (Public Works and Conservation and Development Departments), the School District, the County Office of Education, and the Parent Teacher Association will be required in the development of the TMP	During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., pavement conditions) will be conducted to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including county and school districts for construction near schools, as appropriate. Transportation plans would be developed and included in appropriate encroachment permit applications.
2502	113	Appendix A, Attachment 3B, Page 3B-2 The RDEIR/SDEIS discusses the California Court of Appeal decision in January 2014 known as Lotus v. Department of Transportation. The RDEIR/SDEIS states: "In general, lead agencies must not simply assume, without analysis, that such project features will be effective in avoiding or minimizing significant environmental effects."	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. The No Action Alternative, Proposed Project, and all action alternatives would include implementation of the habitat

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		Because the RDEIR/SDEIS includes no full model runs for the new WaterFix alternatives, DWR and Reclamation cannot simply assume or speculate about the environmental impacts of the preferred alternative. In addition, the lead agencies cannot assume that eliminating the originally. proposed habitat restoration will eliminate many of the previous significant and "unavoidable" adverse water quality impacts without fully modeling operation of the proposed project with a reasonably foreseeable range of actual habitat restoration projects. The RDEIR/SDEIS acknowledges in a number of places that the eventual placement of the WaterFix, and EcoRestore tidal habitat will greatly affect water quality. The changes to the environmental impacts of the WaterFix project with full model runs and specific habitat restoration actions will be significant enough, and the statewide importance of the project, warrant preparation of a new Draft EIR/EIS. The new Draft EIR/EIS should then be released for public review and comment.	restoration actions in accordance with the 2008 USFWS and 2009 NMFS biological opinions. The habitat restoration programs that would be implemented in accordance with the 2008 USFWS and 2009 NMFS biological opinions and under other ongoing programs (e.g., Dutch Slough restoration) are included in the No Action Alternative and in Alternatives 2D, 4A, and 5A. Alternatives 2D, 4A, and 5A only would include minor habitat restoration as part of mitigation measures related to construction or operation of the conveyance facilities. Please see Master Response 30 on Modeling.
2502	114	Chapter 19 of Appendix A, Page 19-123, Line 33 "control for any temporary road closure.." Please be aware that the road network in the East Contra Costa Area is limited with little redundancy. Again, independent, secondary project supportive infrastructure may be necessary due to the limited ability of the surrounding area to support this industrial activity.	Limitations of the roadway network will be addressed during development of detailed site specific construction traffic management plans as discussed in Mitigation Measure TRANS-1A. During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., pavement conditions) will be conducted to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including counties, as appropriate. Site-specific construction traffic management plans (TMPs) would be developed and included in appropriate encroachment permit applications.
2502	115	There are additional roads which the aqueduct will cross that are not discussed in the DEIR. At a minimum, the roads impacted by the project should be listed in the programmatic DIER. In the future, the project specific DEIR should address each road and the associated impact by the project.	During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., pavement conditions) will be conducted to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including counties, as appropriate. Site-specific construction traffic management plans (TMPs) would be developed and included in appropriate encroachment permit applications. DWR will be responsible for project management and will also ensure development of site-specific construction TMPs that address the specific steps to be taken before, during, and after construction to minimize traffic impacts, including the mitigation measures and environmental commitments identified in this EIR/EIS.
2502	116	The future project specific DEIR should include information on detours and temporary/bypass roadways established during the construction period. The applicant shall provide detour plans and public notices well in advance of any proposed road closures.	Limitations of the roadway network will be addressed during development of detailed site specific construction traffic management plans as discussed in Mitigation Measure TRANS-1A.
2502	117	The project specific DEIR should include a drainage study to ensure that the aqueduct does not increase flooding in the area.	As described in Chapters 6 and 14 and in Appendix 3B, during the design phase, site-specific surveys of geotechnical, topographic, groundwater elevations, locations of drainage and other water supply/disposal facilities, and other conditions will be conducted to develop a detailed plan to either avoid interruption to drainage facilities or to provide alternative plans to allow continuation of agricultural and community practices. The Proposed Project does not include an aqueduct and that slurry walls will be installed around the perimeters of the intakes, tunnel shafts, and forebays to avoid changes in groundwater elevations adjacent to the construction sites and during operations of the forebays. As described in the Final EIR/EIS, the drainage plans would be coordinated with state and local agencies, including reclamation districts and property owners.
2502	118	Delta Road from Main Street (old SR4) to Sellers Avenue is under the jurisdiction of the City of Oakley. Delta Road from Sellers Avenue to Byron Highway is under the jurisdiction of Contra Costa County Public Works Department. Revise all tables and other references to reflect the jurisdictional segments.	Comment included in Chapter 19, Transportation.

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2502	119	All applicable maps should be revised to reflect the location of the Byron Airport.	An airport symbol is placed where Byron Airport is on figure 19-1. The remaining map figures are focused on roadways and are not directly related to airports.
2502	120	The project shall comply with the Contra Costa Airport Land Use Compatibility Plan (ALUCP), Countywide and Byron Airport Policies. The basic function of the ALUCP is to promote compatibility between County Airports and the land uses surrounding them. The BDCP proposes an industrial land use, and should demonstrate how the selected project within the Byron Airport Influence Area complies with the aforementioned policies.	During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., pavement conditions) will be conducted to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including counties, as appropriate. DWR will work with the appropriate Contra Costa County agencies to plan proposed actions with the Byron Airport Influence Area.
2502	121	Appendix A, Appendix 8G, Page 8G-1 8G.1 Chloride Methodology New language in the RDEIR/SDEIS stresses that understanding the uncertainties and limitations in the modeling and assessment approach is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives. The RDEIR/SDEIS then states that "in light of these limitations, the assessment of compliance is conducted in terms of assessing the overall direction and degree to which Delta chloride would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta chloride to be out of compliance a certain period of time. In other words, the model results are used in a comparative mode, not a predictive mode." The RDEIR/SDEIS is inadequate because it fails to perform full model runs for the new alternatives, but also because it uses the results from earlier flawed model runs in a comparative mode. If, for example, the input flows to a CALSIM II run were too high then conditions would be wetter than they should be, changes in water quality due to operations of a new project would be underestimated. This error would then propagate into the subsequent DSM2 model run. There would be less seawater intrusion and a reduction in Delta outflow caused by the new project would have less effect on Delta salinity. Subtracting the with-project run from the without-project run in this case would underestimate the real impacts. Subtracting one erroneous run from another does not necessarily get rid of the inherent modeling errors. If the DSM2 simulations of electrical conductivity, chloride and bromide do not comply well with historical data, then the DSM2 model, and if necessary, the CALSIM II model, need to be corrected. If there are errors in the predictions of salinity at Barker Slough or at the south Delta agricultural compliance stations in the base case, looking at the results in a comparative mode will not correct those errors. Similarly, if the Rock Slough or Emmaton standards are exceeded in the base case, the predicted changes in salinity with the project will also be incorrect. Because of the statewide importance of developing a solution to the Delta problems, it is not good enough to accept these large errors in the model predictions. The models and their input files must be revised, including using a daily rather than monthly time step in CALSIM II to eliminate the problems with standards that begin and end within months. A new Draft EIR/EIS should then be prepared with full updated model runs and released for public review and comment.	Please refer to Master Response 14 regarding the modeling conducted for the water quality assessments in the EIR/S for Alternatives 4A, 2D, and 5A. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. The EIR/EIS analysis is based upon comparison of conditions under the Proposed Project and other action alternatives to conditions under the Existing Conditions and the No Action Alternative. The basis of the hydrologic and water quality models is the CALSIM II model, a monthly model that incorporates assumptions about daily operational changes (see Chapter 2 of the EIR/EIS). The No Action Alterative ELT modeling assumptions allow for direct comparison to Alternatives 4A, 2D, and 5A to isolate effects due the alternative separate from effects due to climate change, sea level rise, and population growth that would have occurred with or without the project. This information is to be used by DWR and Reclamation decision makers to compare the results of implementation of the action alternatives as compared to the No Action Alternative and Existing Conditions to select the proposed project. Please see Master Response 30 on Modeling.
2502	122	Appendix A, Appendix 8H, Page 8H-1	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously

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		The RDEIR/SDEIS states that "The sensitivity analysis modeling runs were limited to the Existing Conditions, No Action Alternative, and Alternative 4 Scenario H3, but the findings from these analyses can generally be extended to other scenarios of Alternative 4 and the other project alternatives." Because the sensitivity analyses were applied to Alternative 4 at late long term, they are not at all representative of the preferred alternative, Alternative 4A, at early long term, which has almost no habitat restoration and significantly less sea level rise and seawater intrusion. A new Draft EIR/EIS must be prepared that carries out full model runs for Alternative 4A and the other alternatives at early long term and late long term. The RDEIR/SDEIS also states that "DWR and U. S. Bureau of Reclamation have every intention of operating SWP and CVP facilities by fine tuning reservoir storage and exports in real time to meet D-1641 standards, and any changes to D-1641 as adopted by the State Water Resource Control Board. Actual operations are continuously adjusted to respond to reservoir storages, river flows, exports, in-Delta demands, tides, and other factors to insure compliance to regulatory requirements to the extent possible." Because of the failure of the RDEIR/SDEIS to actually model the new alternatives and revise the flawed modeling for the November 2013 Draft alternatives, the proposed project operations could be different than, poorly, presented in the RDEIR/SDEIS. Exports may need to be reduced in a given month and made up in a subsequent month thereby shifting impacts to other more critical months. A new Draft EIR/EIS must be prepared that carries out full model runs for Alternative 4A and the other alternatives at early long term and late long term. The new Draft EIR/EIS must then be released for public review and comment.	provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. It should be noted that the modeling used in the EIR/EIS must be used in a comparative manner and not to define absolute values. Please see Master Response 30 on Modeling.
2502	123	Appendix A, Appendix 8H - Attachment 1, Page 3 BDCP EIR/EIS Water Quality Sensitivity Analysis The Draft Technical Memorandum, included as an attachment to the RDEIR/SDEIS, states: "DSM2 sensitivity runs listed above were simulated at late-long term (LLT) conditions. NAA DSM2 run at LLT accounts for 45 cm sea level rise at the Golden Gate Bridge. Alt4 H3 DSM2 runs at LLT account for 65,000 acres of restoration in addition to the 45 cm sea level rise. Even though the sensitivity analyses were performed at LLT, the factors identified to explain modeled salinity exceedances at LLT are expected to be valid similarly at Early Long-term (ELT) conditions." This speculation is not correct. The late long term conditions in the Delta will include a significant amount of additional seawater intrusion, especially at locations like Barker Slough (as shown by the sensitivity analyses). Comparing two simulations with a lot of seawater intrusion (subtracting one from the other) is very different from comparing two simulations under conditions with significantly less seawater intrusion (i.e., at early long term). It is also incorrect to claim that "the Lead Agencies have determined that they may reasonably rely on the modeling conducted for Alternative 4 to accurately predict the environmental effects of Alternative 4A" (page 4.2-18). As was acknowledged in the RDEIR/SDEIS on page 4.3.4-24, "…… the quantitative modeling results presented in this assessment is(sp) not entirely predictive of actual effects under Alternative 4A, and the results should be interpreted with caution."	It should be noted that the RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.

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		The result presented in Appendix 8H, Attachment 1, are very interesting but they are no substitute for full model runs. A new Draft EIR/EIS should then be prepared with full updated model runs and released for public review and comment.	
2502	124	RDEIR/SDEIS Appendix B Page B-1 The WaterFix preferred alternative (Alternative 4A) includes a new minimum flow criterion at Rio Vista from January through August consistent with Alternative 4. This was apparently required to constrain the CALSIM II simulations from causing unrealistically low flows in the Delta. The SWRCB as part of its water right permitting process will need to include this same minimum flow criterion in the WaterFix permits to ensure that real-time operations also do not cause unrealistically low flows in the Delta and reverse flows in the north Delta that would adversely impact fish. The RDEIR/SDEIS also states that "Alternative 4A would not include operational elements associated with Fremont Weir modifications as they would be assumed to occur as part of the No Action Alternative as may be required by the existing NMFS (2009) BiOp." See also the related bullet on page B-2. This needs to be clarified. Does Alternative 4A not include Fremont weir modifications even though they are in the NAA? A new RDEIR/SDEIS must be prepared that clearly states that the WaterFix real-time operations will also comply with these new proposed January through August Rio Vista flow requirements and whether the Fremont weir modifications will not be made if the WaterFix project is implemented. The new Draft EIR/EIS should then be released for public review and comment.	Please see Chapter 11for information regarding minimum instream flow criteria for aquatic resources and Master Response 4_ related to Alternatives Analysis Diversions from the Sacramento River into the Yolo Bypass through an operable gate at Fremont Weir would occur under the No Action Alternative and the action alternatives.
2502	125	Page B-3 The RDEIR/SDEIS states that "For the Alternative 4A sensitivity analysis Alternative 4 CALSIM II models from draft EIR/EIS were used as is, without including any recent updates to the CALSIM II since the draft EIR/EIS was completed, to remain consistent with the draft EIR/EIS modeling." The environmental analyses and disclosures of impacts in the RDEIR/SDEIS are inadequate because of flaws identified for the earlier BDCP model runs and CALSIM II and DSM2 models, and the failure to include the recent updates to the models and revise the earlier modeling runs. The approach chosen by the lead agencies therefore did not allow any reliable verification of whether the draft EIR/EIS modeling could be used to inform Alternative 4A impact analysis in the REIR/EIS. A new Draft EIR/EIS must be prepared that carries out full model runs for Alternative 4A and all other alternatives using updated and revised CALSIM II and DSM2 models. The new Draft EIR/EIS must then be released for public review and comment.	Please see Master Response 30 on Modeling. The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.
2502	126	Page G-5, Line 31 G.4.4 Reduce Reliance on the Delta through Improved Regional Water Self-Reliance The RDEIR/SDEIS states that "DWR supports Demand Management Measures (DMM) which are tools to reduce reliance on imported water." However, the RDEIR/SDEIS argues that the	Chapter 2 Project Objectives and Purpose and Need of the Final EIR/EIS states that a purpose of the Proposed Project is to make physical and operational improvements to the State Water Project (SWP) system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and Central Valley Project (CVP) south-of-Delta, and water quality within a stable regulatory framework with statutory and contractual obligations. Please refer to Master Response 6 for additional information

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		urban and agricultural water management plans and the water conservation provisions of Senate Bill x7-7 and Assembly Bill 1420 and other programs do not give DWR authority to mandate or impose conservation requirements on suppliers or regional agencies. The current drought emergencies have shown that the State can indeed impose conservation requirements on water users statewide. The 2009 Delta Reform Act requirement to reduce dependence on diversions of water from the Delta means that new Bay-Delta projects, especially WaterFix, must include binding commitments that DWR and Reclamation's export water contractors will reduce their water uses through water management and conservation actions. It is not sufficient to rely on suppliers becoming ineligible for state water management grant funds to reduce water demand. A new Draft EIR/EIS must be prepared that includes holistic solution alternatives that include binding commitments for demand reduction and water conservation actions. The new Draft EIR/EIS should then be released for public review and comment.	regarding Demand Management. Please refer to Master Response 4 (Alternatives), Master Response 31 (Delta Reform Act), and Master Response 2 (Purpose and Need) for additional information on the scope of the Proposed Project.
2502	126	Appendix F: Supplemental Modeling Results at ELT for 3 Alternative 4 at H1 and H2 Page F-1 This RDEIR/SDEIS appendix presents the CALSIM water operations modeling results for Alternative 4 for operational scenarios referred to as "Scenarios H1 and H2" at early long term. These two scenarios from the BDCP Draft EIR/EIS do not include the Fall X2 requirement in the biological opinions and found by the State Water Resource Control Board to be necessary to restore and sustain recovery of fish species in the Delta. Recent court decisions confirmed the validity of the USFWS's biological opinion requirement to meet Fall X2 in wet and above normal years. It is very difficult to comprehend why the lead agencies, who purport to be developing a project to improve conditions for key fish species, are continuing to promote SWP and CVP operations that do not include Fall X2 operation required under their biological opinions, and would continue to harm key fish species. This is also contrary to the state and federal requirements (Public Law 112-74) to contribute to achieving the coequal goals.	Please see Master Response 30 on Modeling and Master Response 14 related to water quality.
2502	127	Page G-6, Line 34 G.4.6 Delta Flow Objectives The RDEIR/SDEIS states that "DWR complies with Delta flow objectives by use of real time operating procedure and will continue to do so into the future when new objectives are set." If, as required by the 2009 Delta Reform Act, the State Water Resource Control Board implements high Delta flow requirements, DWR and Reclamation may not be able to meet these new flow objectives without new infrastructure. The RDEIR/SDEIS is inadequate because it fails to analyze operation of CVP and SWP operations with existing Delta infrastructure and new flow objectives. It also fails to analyze alternatives that would allow the CVP and SWP to meet new SWRCB flow objectives and still meet water delivery goals to CVP and SWP water contractors. A new Draft EIR/EIS must be prepared that assumes new SWRCB flow objectives will be in place in the immediate future and develops alternatives that are compatible with those new	As described in Section 6.3.4 of Chapter 6, Surface Water, of the EIR/EIS, the State Water Resources Control Board is conducting a current program to update the Bay-Delta Water Quality Control Plan. Since this program is still under development and the potential outcomes are not known at this time, this program is not included in the analysis. Following completion of the updated Bay-Delta Water Quality Control Plan, SWP and CVP operations would need to be reviewed to determine if the operations continued to comply with the new regulations. The Proposed Project would increase Delta exports and reduce Delta outflow during wet and above normal years with the use of the North Delta intakes, as described in Chapter 5, Water Supplies, and Chapter 6, Surface Water. The model results in Appendix 5A, Section C, of the Final EIR/EIS for Alternative 4A indicate that during the September through December period in all year types and in February and March in wet and above normal year types, Delta outflow would increase under Alternative 4A as compared to Existing Conditions. However, Delta outflow would be similar or less in most conditions except in October in all water year types as compared to the No Action Alternative.

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		alternatives, e.g., holistic alternatives that include new storage to capture "new" water under high flow conditions in the Delta when flows are surplus to the needs of the Delta. The new Draft EIR/EIS should then be released for public review and comment.	Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS,.
2502	128	WaterFix preferred alternative will increase exports in the driest months when the Delta ecosystem is most stressed. The California WaterFix proponents claim that one of the benefits of the WaterFix conveyance proposal is that it will reduce the damaging effect of exports from the south Delta on key fish species. There is general agreement amongst Bay-Delta stakeholders that the location of the south Delta export locations (Clifton Court Forebay and the Jones Pumping Plant) cause reverse flows that direct fish toward the export pumps and adversely impact fish populations. The Bay Delta Conservation Plan (BDCP) and WaterFix proponents also claim that the project will operate according to a Big Gulp, Little Sip principle. This principle was one of the original planning principles of the BDCP Steering Committee (BDCP March 2009 "An Overview and Update") - "Divert more water in the wetter periods and less in the drier periods." It is important to realize that "wetter periods" applies to periods of high runoff and high Delta flows, which occur on the order of weeks or months. Wet periods usually occur during the winter and spring. The summer and fall are typically dry periods. There can be wet periods, albeit brief, during dry water years just as there can be dry periods during wet water years. An inspection of the monthly Delta export data from the WaterFix analyses suggest that neither of these alleged benefits of the BDCP and WaterFix is true. Currently, the maximum rate of exports from the Delta during drier periods is about 11,280 cubic feet per second (cfs) (6,680 cfs at the SWP export facility plus 4,600 cfs at the CVP pumps.). As shown in Figure C-1 [ATT 8], the WaterFix data for Alternative 4A, Scenario H3 at early long term, suggest that in many dry months when Delta outflows are very low, the combined SWP and CVP exports from the south Delta would be as high as 14,900 cfs. This is an increase in south Delta pumping of 3,600 cfs or about 24%. Rather than diverting less in dry periods and reducing the CVP and SWP's dependence on water from the Delta, the WaterFix project would increase exports. The same WaterFix operations simulations show that during periods of high Delta outflow (say 30,000 cfs or greater), when water surplus to the needs of the Delta could be available for export, the WaterFix preferred alternative often fails to increase in export diversions above existing levels (Figure C-2 [ATT 9]). In other words, without new storage in or close to the Delta, the WaterFix preferred alternative is unable to capture this surplus flow. During wet periods, farmers' fields and urban landscapes are soaked reducing demand for water. The existing south-of-Delta reservoirs fill and there is nowhere else to quickly store more water. The WaterFix preferred alternative will be unable to regularly take a "Big Gulp." Increasing exports from the Delta in the dry months is in direct conflict with the 2009 Delta Reform Act (Water Code Section 85021), which states that the policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. The BDCP proposed project includes no actions to improve	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.

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		regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts. The WaterFix preferred alternative will operate under conditions bracketed by Scenarios H3 and H4. Both include Fall X2 requirements in wet and dry years. Inconceivably, the RDEIR/SDEIS also indicates the lead agencies still desire to operate without Fall X2, i.e., Scenarios H1 and H2, which are analyzed and disclosed in Appendix F of the RDEIR/SDEIS. To ensure that the WaterFix project actually operates as the lead agencies say it will, and to be consistent with the 2009 Delta Reform Act, it will be necessary for the fish agencies, the State Water Resource Control Board, and other regulatory agencies to impose an additional export limit that ensures less water will be exported during the driest periods. Figure C-3 shows the same data as Figure C-1 but this figure also shows a limit on total CVP and SWP exports of the form: total exports = 1.5 x Delta outflow. This would mean that in the fall when outflows are only 3,000 cfs, only 4,500 cfs can be exported. The CVP and SWP would not be able to increase exports above existing levels unless Delta outflow was 7,500 cfs or greater. The resulting loss of export water would have to be made up during periods of higher Delta outflow. That will not be possible though without new storage and other infrastructure in the Delta to capture more water during higher flow periods. According to Appendix C of the RDEIR/SDEIS, the SWRCB requested that an additional alternative be analyzed (4H3) which would be operated to much higher Delta outflow requirements specified by the SWRCB. Unfortunately, DWR and Reclamation did not modify the WaterFix infrastructure to adapt to these higher outflow requirements so the environmental benefits and viability (with respect to cost and water supply benefits) of a higher Delta flow alternative were not tested and disclosed. It is interesting, however, that the corresponding total exports versus Delta outflow graph for SWRCB Alternative 4H3 shown in Figure C-3 [ATT 10] does represent less water being exported in drier periods. The reduced exports in this SWRCB alternative are consistent with the suggested low outflow export limit (total exports = 1.5 x Delta outflow). A new Draft EIR/EIS should be prepared that includes more holistic alternatives that reduce exports during drier months (e.g., in a fashion similar to the suggested exports = 1.5 inflow limit) and are able to capture "new" water during periods of high Delta outflow. That would contribute to achieving the coequal goals as well as improving water quality in the Delta. The dismal WaterFix proposal hinders any progress to achieving these goals. The new Draft EIR/EIS should then be released for public review and comment.	
2502	129	ATT 8: Figure C-1: Monthly total Delta exports as a function of Delta outflow for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-128. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.
2502	130	ATT 9: Figure C-2: Monthly total Delta exports as a function of Delta outflow for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-128. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.
2502	131	ATT 10: Figure C-3: Monthly total Delta exports as a function of Delta outflow for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-128. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.

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2502	132	ATT 11: Figure C-4: Monthly total Delta exports as a function of Delta outflow for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-128. Please see Master Response 4 regarding the selection of alternatives used in the EIR/EIS.
2502	133	WaterFix preferred alternative exceeds existing U.S. Army Corps of Engineers limits on inflow to Clifton Court. A detailed review of the WaterFix sensitivity analysis data for Alternative 4A reveals that the monthly exports from the south Delta exceeded the U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay from the south Delta. As described on page 5A-B6 of the BDCP Draft EIR/EIS, the Army Corps limits to daily diversion into Clifton Court Forebay to 6,680 cubic feet per second (cfs) (specified as a three-day average daily diversion of 13,250 acre-feet). Higher inflows are permitted from mid-December to mid-March when the flow of the San Joaquin River at Vernalis exceeds 1,000 cfs. An additional 500 cfs is also permitted for July - September to reduce NMFS biological opinion impacts. Figure C-5 [ATT 12] shows the WaterFix analysis SWP South Delta export data for Alternative 4A, Scenario H3, at early long term, for April through November when the Army Corps limits of 6,680 cfs apply. The simulated inflows to Clifton Court (SWP through-Delta exports) are as high as 9,750 cfs with total south Delta export as high as 14,350 cfs. This is well in excess of the permitted values for this period, and is inconsistent with the WaterFix project claim of ecosystem benefits because exports from the south Delta will be reduced. The WaterFix RDEIR/SDEIS is inadequate because it fails to clearly disclose to the public and to decision makers like the Army Corps that DWR is proposing to eliminate existing limits on the inflow to Clifton Court, and that the analyses to support the Army Corps application violates that limit. Figure C-6 [ATT 13] shows the same SWP south Delta export data as Figure C-5 [ATT 12], but this time plotted as a function of Delta outflow. The violations of the Army Corps limits occur during drier months when Delta outflows are lower. This is again directly contrary to the principle of taking a "Little Sip" during drier periods, i.e., reducing exports relative to existing levels. During high outflow periods (outflows > 15,000 cfs), inflows to Clifton Court are well below the maximum permitted inflow. A new Draft EIR/EIS must be prepared that includes new alternatives that comply with the U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay, and other legal requirements set by the State Water Resource Control Board and the biological opinion, and released for public review and comment.	The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS. Under the Proposed Project (Alternative 4A), the model assumptions maintained the existing diversion limits at Clifton Court Forebay per the USACE agreements; and export of up to 10,300 cfs of SWP water in the wetter months is based upon conveyance through the Banks Pumping Plant of water diverted at the north and south Delta intakes. Please see Master Response 30 related to modeling.
2502	134	ATT 12: Figure C-5: Monthly SWP exports from the south Delta for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term) for the period October 1921 through September 2003.	Please see response to Comment 2502-133. Please see Master Response 30 related to modeling.
2502	135	ATT 13: Figure C-6: Monthly SWP exports from the south Delta as a function of Delta outflow for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-133. Please see Master Response 30 related to modeling.
2502	136	The WaterFix analyses violate the SWRCB D-1641 minimum Rio Vista flow requirements.	As shown in Appendix 5A, Section C, of the Final EIR/EIS, Alternative 4A is consistent with State Water Resources Control Board Decision 1641. The Delta Cross Channel assumptions in the CALSIM II model are

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		State Water Resource Control Board Water Rights Decision 1641 requires minimum Rio Vista flows be met in the fall (September through December). As shown in Figure C-7 [ATT 14], the monthly Rio Vista flows for September and October for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term) fall well below the D-1641 requirements in a number of the drier years. DWR and Reclamation's change of point of diversion petition to the SWRCB for the WaterFix project also fails to disclose to the SWRCB that the WaterFix proponents are either proposing to selectively ignore certain D-1641 standards or that the analyses used to support the petition are flawed and not acceptable for decision making. The WaterFix RDEIR/SDEIS is inadequate because it fails to comply with the SWRCB minimum flow requirements at Rio Vista and fails to clearly disclose these significant violations to decision makers and the public. A new Draft EIR/EIS must be prepared which includes new alternatives that comply with all legal requirements including the Rio Vista minimum flow standards and then be released for public review and comment.	consistent between the No Action Alternative and action alternatives in the EIR/EIS. Operations under Proposed Project (Alternative 4A) would increase Delta outflow due to Old and Middle River criteria which will improve water quality as compared to the No Action Alternative. Please see Master Response 30 related to modeling. .
2502	137	ATT 14: Figure C-7: Times series of monthly Rio Vista flows for September and October for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term) for water years 1922 through 2003.	Please see response to Comment 2502-136 and Master Response 30 related to Modeling.
2502	138	WaterFix project does not minimize reverse flows in the south Delta - Large reverse flows remain - OMR sometimes increases. The discussion of Old and Middle River flows (OMR) in the RDEIR/SDEIS fails to clearly disclose whether reverse flows in the south Delta remain large in some months (i.e., are far from minimized) and whether the WaterFix project will actually increase reverse flows in other months. Because the new north Delta intakes and isolated conveyance are being promoted as a providing ecosystem benefits by reducing the adverse impacts of SWP and CVP exports from the south Delta, the goal of the WaterFix project should be to eliminate reverse flows more negative than, say, -2,000 cubic feet per second, in all months. There are resident fish in the Delta all year round that are not yet listed as threatened or endangered. Salvage of other species such as Striped bass, largemouth bass, white cat fish and Mississippi silversides is already large under existing conditions (see Grimaldo et al., "Factors affecting fish entrainment"). This is also likely to be a problem for sturgeon. Http://swrcb2.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/sfwc/spprt_docs/sfwc_exh3_grimaldo.pdf It is not sufficient to just improve OMR in a few key months when Delta smelt and other listed species are present and redirect reverse flow impacts to the subsequent months. If the months of July and August are in effect sacrificed with respect to control of reverse flows, the adverse impacts of Delta exports will shift to these two months and possibly September and new fish species are likely to decline. OMR has to be controlled in all months to avoid redirecting serious impacts to these months. Figure C-8 [ATT 15] shows simulated monthly Old and Middle River flows for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term) compared to the OMR flows for the existing basecase, as a scatter plot. Many of the monthly reverse flows are very large in the base case (x-axis) and would remain large even with implementation of the WaterFix preferred alternative with its new north Delta intakes. Some of the existing	Please see Master Response 30 related to Modeling. Please also see Appendix B, Supplemental Modeling for Alternative 4A, Section B.7 (RDEIR/SDEIS Section 4.3.7. Operations under Alternative 4A would still be consistent with the criteria set by the USFWS (2008) and NMFS (2009) biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641).

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		large reverse flows would get even worse with WaterFix. OMR values of -12,000 cfs in the basecase would worsen to -14,000 cfs and harm resident fish in the Delta. The published claims that the RDEIR/SDEIS and the proposed project will minimize reverse flows are untrue, and could be viewed as disingenuous. By claiming the north Delta intakes benefit fish by minimizing reverse flows, the BDCP and WaterFix proponents are acknowledging the current level of exports from the south Delta exports adversely impact fish species. For a proposed Bay-Delta project to be able to contribute to meeting the coequal goals and help restore and sustain fish species, the project operating rules will need to effectively eliminate reverse flows in the critical months for the key fish species, but also significantly decrease (not increase) reverse flows in the south Delta in all the other months. The WaterFix project and RDEIR/SDEIS is inadequate because it fails to minimize reverse flows in the Delta, and fails to clearly disclose these significant adverse impacts on fish in the Delta. A new Draft EIR/EIS must be prepared which includes new alternatives that significantly reduce or eliminate reverse flows and be released for public review and comment.	
2502	139	ATT 15: Figure C-8: Monthly Old and Middle River flows for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term) compared to the OMR flows for the existing basecase.	Please see response to Comment 2502-138. Please see Master Response 30 related to Modeling.
2502	140	The Water Fix project fails to comply with the SWRCB Water Rights Decision 1641 export/inflow requirements. The D-1641 export/inflow (E/I) ratio calculation was designed to protect fish from the significant adverse impacts of the inadequately screened SWP and CVP export intakes in the south Delta. Those impacts include entrainment of fish, drawing fish out of the Sacramento River system into the south Delta, and general ecosystem impacts that result from diverting too much of the inflow to an estuary. The new north Delta intakes will also impact the health of the Sacramento-San Joaquin Delta estuary by diverting inflow that otherwise would be available for fish, to restore water quality and otherwise reduce the impacts of Other Stressors. To restore and sustain the Delta ecosystem and achieve the ecosystem coequal goal, it is important that the State Water Resource Control Board export inflow ratio remain as defined in D-1641 and be met. Figure C-9 shows the RDEIR/SDEIS simulations of monthly export/inflow ratios for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term). The export ratios are computed according to the correct SWRCB Water Rights Decision 1641 definition (yellow circles), as well as the faulty definition used in the RDEIR/SDEIS (green diamonds). During periods when the export/inflow is required by D-1641 to be 0.35 or less, the WaterFix project would export almost 50% more water than permitted (E/I as much as 0.5). During periods when an export/inflow ratio of 0.65 is required under D-1641, the WaterFix preferred alternative E/I ratio is as high as 0.71. A new Draft EIR/EIS must be prepared that analyze alternatives that comply with the SWRCB's export/inflow standards as well as the existing Army Corps limits on inflow to Clifton Court and the San Joaquin inflow to export ratios in the biological opinions. Additional full model runs could still be included to disclose individual impacts to the Delta ecosystem and water quality if those legal requirements were not met. The new Draft must	The Export/Inflow ratio requirements used in most of the action alternatives in the EIR/EIS were defined as in the State Water Resources Control Board Decision 1641 (developed without the concept of the north Delta intakes) with the term "Exports" defined at the south Delta intakes, and the term "Inflows" defined at a location downstream of the proposed north Delta intakes. Please see Master Response 30 related to Modeling.

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		then be released for public review and comment.	
2502	141	ATT 16: Figure C-9: Simulations of monthly export/inflow ratios for the WaterFix preferred alternative (Alternative 4A, Scenario H3 at Early Long Term).	Please see response to Comment 2502-140. Please see Master Response 30 related to Modeling.
2502	142	The WaterFix preferred alternative fails to comply with existing limits on the ratio of San Joaquin inflow to South Delta exports. The 2009 NMFS biological opinion sets limits on the ratio of San Joaquin inflow at Vernalis to south Delta exports in April and May. As was discussed in Contra Costa County's 2014 comments on the BDCP Draft EIR/EIS (Attachment F of that comment letter), modeling analyses for the BDCP proposed project failed to comply with this biological opinion requirement. The RDEIR/SDEIS Appendix 8H, Attachment 1, confirms that the BDCP Draft EIR/EIS Alternative 4 did not include a requirement that the San Joaquin River inflow to export ratio action in the NMFS BiOp be met. However, the flawed BDCP modeling of Alternative 4 was the basis for the brief sensitivity analyses used in the RDEIR/SDEIS. The RDEIR/SDEIS at page 6-20, Line 12 states: "Reverse flow conditions for Old and Middle River flows would be reduced under Alternative 4 on a long-term average basis except in May in scenarios H2 and H4 and in April and May in scenarios H1 and H3, compared to reverse flows under both Existing Conditions and the No Action Alternative, as shown in Figure 6-23. Compared to flows under the No Action Alternative, Old and Middle River flows would be less positive in April and May under scenarios H1 and H3 because these scenarios do not include inflow/export ratio criteria for the San Joaquin River in those months, although there are other criteria for Old and Middle River flows assumed in these scenarios." The RDEIR/SDEIS is inadequate because the proposed project and analyses fail to comply with the San Joaquin inflow to export ratio. It is not up to DWR and Reclamation to decide not to bother to meet legal requirements and then fail to disclose these potential violations in the environmental documentation. A new Draft EIR/EIS must be prepared that includes project alternative that meet all D-1641, and biological opinion and U.S. Army Corps of Engineers inflow limit requirements. The new Draft EIR/EIS must also be clearly written with detailed graphs and tables so that it is clear to the public and decision makers what operating rules apply and whether some of these requirements are being exceeded or otherwise violated. The new Draft EIR/EIS must then be released for public review and comment.	The Inflow/Export ratio criteria included in the 2009 NMFS Biological Opinion is being proposed to be replaced by an Old and Middle River (OMR) flow criteria that also would replace OMR flow criteria in the 2008 USFWS and 2009 NMFS biological opinions. Please see Master Response 30 related to Modeling.
2503	1	With nearly two-thirds of the Delta located in San Joaquin County, we [the San Joaquin County Board of Supervisors is] deeply concerned about the protection of water quantity and quality available within the Delta. We are equally concerned with the negative effects the BDCP/WaterFix will have on the County's communities, land use, infrastructure, agriculture and economy. Further, the elimination of any role for local oversight of the operation of WaterFix is wholly unacceptable.	For information on how the project could affect water quality, please see Master Response 14 and Final EIR/EIs, Chapter 8, Water Quality. For information on how the proposed project could potentially affect communities, land use, infrastructure, agriculture, and economy, please see Chapter 13, Land Use; Chapter 14, Agricultural Resources; and Chapter 16, Socioeconomics. With regards to agricultural resources, please see Master Response 18. With regards to Land Use and applicability of city and county general plans, please see Master Response 11. Federal, State and local oversight exists in the form of existing laws and regulations that the proposed project is subject to. Those laws and regulations are described in the regulatory setting section of each of the resource chapters. The comment does not raise any environmental issue related to the environmental

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			analysis.
2503	2	Resolution Affirming San Joaquin County's Opposition to the BDCP/WaterFix, Approving the County's Comments to the Revised Draft EIR and Revised Supplemental EIS, Authorizing the Submission of those Comments to the Appropriate State and Federal Agencies and Reaffirming San Joaquin County's Support for the Delta Counties Coalition Principles WHEREAS, the Sacramento-San Joaquin Delta (hereinafter Delta) is a unique natural and geographic feature of the State of California, and is the largest estuary on the Pacific Coast of the United States encompassing an area of over 730,000 acres with islands and tracts of rich fertile soil surrounded by miles of sloughs and winding channels protected by levees; and WHEREAS, the Delta is one of the most productive agricultural regions in the United States, with approximately 80% of the Delta classified as Prime Farmland, as contrasted with 20% for all of California, and Delta agriculture has an economic impact of roughly 9,700 jobs and $1.4 billion in economic output in the five Delta counties, but when value-added manufacturing such as wineries, canneries and dairies are included, has a total Statewide economic impact of approximately 25,000 jobs and $5.372 billion in economic output; and WHEREAS, the islands and waterways of the Delta provide habitat for many species of plants and animals, including several listed as either threatened or endangered under State and Federal endangered species laws; and WHEREAS, recreation in the Delta generates roughly 12 million visitor days of use and approximately $250 million in visitor spending each year, with Delta recreation and tourism supporting over 3,000 jobs in the five Delta counties; and WHEREAS, the Delta is a critical infrastructure and transportation hub for the regional and State economy, with important east-west highway and rail facilities, major electrical transmission lines connecting California to the Pacific Northwest, and gasoline and aviation fuel pipelines crossing the Delta supplying large portions of Northern California and Nevada; and WHEREAS, two-thirds of the legal Delta is located within San Joaquin County and the Delta comprises one-third of this County's total area, meaning that the health and vitality of the Delta is critically important to the economic health, culture and social fabric of San Joaquin County and its citizens; and WHEREAS, the Delta is also the key conveyance point for California's two largest water projects, the Central Valley Project (CVP) and the State Water Project (SWP) with massive pumps in the Southern Delta near Tracy, California which transport water from the Delta primarily to farms in Central California and municipalities in Southern California; and WHEREAS, because of the failure to complete the ultimate build-out of water supplies for the CVP and SWP, leaving the system approximately 5 million acre-feet short of water per year, coupled with oversubscription by the water contractors and the water system's State and Federal operators of the water that is available, this has resulted in degradation of both the quality and quantity of water in the Delta and harm to the ecology and economy of the Delta, and	The comment states San Joaquin County's opposition to the twin-tunnel alternative. See Master Response 31 concerning compliance with the Delta Reform Act. The comment does not raise any environmental issue related to the environmental analysis.

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		WHEREAS, the water contractors and the State and Federal operators of the CVP and SWP have over the years sought to find ways to transport water directly from the Sacramento River to the pumps near Tracy in order to obtain a greater quantity and quality of water than they could pump out of the South Delta, which efforts would result in further degradation and destruction of the Delta and economic and social harm to the citizens of San Joaquin County, and WHEREAS, those water interests proposed a Peripheral Canal which the voters voted down in 1982, but are now promoting a new twin-tunnels project which is capable of diverting huge quantities of fresh water directly from the Sacramento River to the Tracv pumps, but this time the proponents of the twin-tunnels project have attempted to hide their massive and incredibly expensive water project inside a so-called conservation plan known as the Bay Delta Conservation Plan (BDCP); and WHEREAS, for the reasons set forth in the documents attached hereto and adopted herein as the County's comments to the BDCP/WaterFix Revised Draft Environmental Impact Report (RDEIR)-Supplemental Draft Environmental Impact Statement (SDEIS), the BDCP/WaterFix Draft RDEIR-SDEIS fails to meet the legal requirements for a valid EIR-EIS, and also fails to meet the co-equal goals of water supply reliability for the State and restoration of the health of the Bay-Delta ecosystem as required by the Delta Reform Act of 2009; and WHEREAS, there are less expensive and more effective ways than the twin tunnels and the BDCP/WaterFix to address the legitimate water needs of the various water interests in the State of California without needlessly sacrificing the Delta and San Joaquin County, or pitting Northern California against Southern California and farmer against farmer; NOW, THEREFORE, BE IT RESOLVED that this Board of Supervisors: Does hereby reaffirm its opposition to any isolated water conveyance system in the Delta such as the twin-tunnels project, and further specifically opposes the BDCP; and Does hereby approve and adopt the documents attached hereto as San Joaquin County's official comments to the BDCP/WaterFix Draft RDEIR and SDEIS; and Does hereby authorize submission of these adopted comments to the appropriate State and Federal agencies, both as comments from San Joaquin County and as joint comments with the Central Delta Water Agency and the South Delta Water Agency: and Does hereby join in any comments which will be filed by the Central Delta Water Agency and South Delta Water Agency, and further that County staff is authorized to supplement the County's comments between today and October 30, 2015, to the extent that the comments submitted by others or other information comes to light which in staff's discretion should be included in the County's comments; and Does reaffirm the County's support for the principles adopted by the Delta Counties Coalition; and Does hereby direct staff to take all necessary and appropriate actions to carry out the direction and intent of this Resolution.	

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2503	3	[ATT1: The Bay-Delta Conservation Plan/California WaterFix Partially Recirculated Draft EIR/Supplemental Draft EIS Summary of Foundational Legal Issues Report on July 2015 Public Review Drafts, by Roger B. Moore and Antonio Rossmann of Rossmann and Moore, LLP, 2014 Shattuck Ave. Berkeley, CA 94704.]	This comment describes an attachment to the comment letter prepared by Mr. Moore. The issues raised in this attachment are addressed in the responses to comments to letter 1784 on the 2013 Draft EIR/EIS which can be accessed through the comment response table in the Final EIR/EIS. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS.
2503	4	[ATT2: Comments on the BDCP EIR/EIS prepared by Amy Skewes-Cox and Robert Twiss. Prepared for San Joaquin County Department of Public Works. October 4, 2015.]	This comment describes an attachment prepared by The County Department of Public Works. The issues raised in this attachment are addressed in the responses to comments to letter 1784 on the 2013 Draft EIR/EIS which can be accessed through the comment response table in the Final EIR/EIS. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS.
2503	5	[ATT3: Adaptive Management and Monitoring Comment.]	This attachment supports the use of adaptive management. The Lead Agencies are incorporating a robust adaptive management program in the proposed project, Please refer to Master Response 33 for additional information and the Final EIR/EIS and to the index of commenters to locate the letters submitted by the Delta Independent Science Board and their responses... The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS.
2504	1	The California WaterFix is only one part of the State's overall Water Action Plan. The State's Water Action Plan aims to meet three broad objectives: "more reliable water supplies, the restoration of important species and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades." The District [Santa Clara Valley Water District] supports all three of these objectives and urges the State to not lose momentum on implementing a comprehensive approach to address multiple stressors and restoration opportunities. The District supports accelerating habitat restoration through the California EcoRestore program, and also encourages the State to continue efforts to address all the stressors identified in Conservation Measures 2-21 of the BDCP.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2504	2	The District [Santa Clara Valley Water District] remains concerned with continuing to rely on existing conditions of through-Delta conveyance for the District's imported water supplies because of the instability of existing Delta levees, underlying seismic risks, climate change, ongoing regulatory uncertainty, and the Delta's environmental health. To address these concerns, the District has been supporting efforts to achieve the coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem, in balance with the unique and evolving cultural, recreational, natural resource, and agricultural values of the Delta.	No issues were raised related to the adequacy of the environmental impact analysis in the EIR/S.
2504	3	The District's [Santa Clara Valley Water District] desired outcome is a cost-effective, comprehensive, and reliable long-term solution for the Delta that meets the water supply, water supply reliability and water quality needs of Santa Clara County while balancing other beneficial uses and providing a sustainable Delta ecosystem. It is within this context that the District has reviewed the RDEIR/SDEIS. With respect to the District's goal of balancing other beneficial uses, the District commends the State for revisions to the project that lessen the project's impacts on Delta communities. The California Department of Water Resources (DWR) has, in response to public input, revised the preferred alternative to substantially reduce the adverse effects of the project	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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		on Delta residents and the Delta environment. The latest design modifications provide for gravity flow of water through the tunnels and include consolidation of previously proposed pumping plants at the tunnel intakes into a single facility at Clifton Court Forebay; these changes reduce visual impacts, facility footprint size, and power needs.	
2504	4	The environmental review document needs to include an assessment of water supply and water quality impacts associated with draw down of the San Luis Reservoir and appropriate measures to address those impacts. The analysis should consider the real-time operational adjustments that are likely to occur. The District [Santa Clara Valley Water District] understands that DWR will be responding to all comments on the 2013 Draft EIR/EIS (as well as comments it receives on the RDEIR/SDEIS during this public review process) in the final EIR/EIS and that DWR will be updating its analysis on the issue based on more recent modeling results. Please contact District staff if DWR has questions relating to this issue or if there is any information that the District can provide to assist DWR with completing the updated analysis related to San Luis Reservoir operations.	The purpose of the EIR/EIS is to disclose changes in environmental resources, including changes in water deliveries and water quality, under the action alternatives as compared to the Existing Conditions and the No Action Alternative. The CALSIM II model results presented in the EIR/EIS indicate that during some periods of time, San Luis Reservoir storage would be lower than under Existing Conditions and No Action Alternative conditions. This may result in a change in deliveries for those that use water stored in San Luis Reservoir. Impacts to water quality in reservoirs in the CVP and SWP export service area, such as San Luis Reservoir, are addressed via assessment of changes in water quality at the export pumping plants in Chapter 8, Water Quality. With the preferred alternative, Alternative 4A, water quality at the export pumping plants would be similar to existing conditions or improved relative to Existing Conditions and the No Action Alternative.
2504	5	The District's [Santa Clara Valley Water District] desired outcome is also a cost-effective solution with costs allocated equitably. In order for the District to support the project, it must make economic sense to Santa Clara County. While the costs and cost allocations among beneficiaries are still being determined, the project must provide for sufficient water supplies, water supply reliability and water quality improvements to justify the substantial financial investment.	Please refer to Master Response 5 for additional details on the costs of project implementation.
2504	6	There is still significant scientific uncertainty associated with the benefits of many of the operational criteria that constrain export supplies in the proposed project. The District [Santa Clara Valley Water District] encourages DWR, the U.S. Bureau of Reclamation and the fish and wildlife agencies to commit sufficient staff and financial resources to support a robust collaborative science and adaptive management program which would identify management actions and operational criteria that maximize water supplies while minimizing impacts and avoiding jeopardy to listed fish species.	Please see Chapter 3 in the FEIR/EIS for an updated discussion on the Adaptive Management and Monitoring Program (AMMP) under the preferred alternative, 4A. As the commenter describes, the preferred alternative will be operated in a way to increase water supply reliability, while minimizing and avoiding adverse impacts to listed species. Adjustments to operations, in consideration of potential water supply and species effects, will be possible through the various AMMP processes, subject to approval from applicable regulatory agencies and consistent with state and federal permitting processes.
2505	1	Inland Empire Utility Agency supports the comments made by the Metropolitan Water District of Southern California, Delta Independent Science Board and the Delta Stewardship Council about the need for additional analyses and information to ensure that Final EIR/EIS provides sufficient information on which to base a final decision that the documents comply with environmental review standards.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts (using the best available science and modeling), direct and cumulative, that project description is complete and satisfies the requirements of NEPA, and that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies believe that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. To review responses to comments submitted by Metropolitan Water District of Southern California during the 2013 and/or 2015 comment periods, please refer to the index of commenters to find the appropriate letter number(s).
2505	2	While the DEIR/DEIS provides some information that is useful, it does not sufficiently address the impacts of climate change nor describe operational scenarios that would enable	The comment states that the Draft EIR/EIS does not sufficiently address the impacts of climate change. However, the commenter does not offer any reason for why the impacts of climate change are not

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		capture of SWP supplies when they are available and the limits on the SWP systems demands when these supplies are not (Gulp-Sip operations).	sufficient. The assumptions used for climate change and sea-level rise in the CALSIM modeling are described in Appendix 5A of this Final EIR/EIS including a complete explanation about why they were used. For more information regarding climate change and GHGs please see Master Response 19. The comment states that there is no description of "operational scenarios that would enable capture of SWP supplies when they are available and the limits on the SWP systems demands when these supplies are not (Gulp-Sip operations)." Please refer to Master Response 37 regarding storage of water when available. Please see Master Response 28 for more information on operational criteria. While water storage is a critically important tool for managing California's water resources, it is not a topic that must be addressed in the EIR/EIS for the proposed project. This is because the proposed project does not, and need not; propose storage as a project component. Although the physical facilities contemplated by the proposed project, once up and running, would be part of an overall statewide water system of which new storage could someday also be a part, the proposed project is a stand-alone project for purposes of CEQA and NEPA, just as future storage projects would be. Appendix 1B, Water Storage, of the Final EIR/EIS, describes the potential for additional water storage.
2505	3	A better description of the habitat mitigation requirements would be helpful, especially given the modification of the project description to allocate ecosystem restoration activities to the proposed California EcoRestore program.	The proposed project no longer includes an HCP and therefore habitat restoration proposed as part of the project is only that required to mitigate significant environmental impacts of WaterFix. The separate EcoRestore program will address restoration requirements in the Delta more generally and in response to pertinent Biological Opinions. Please see Master Response 22 for a discussion on mitigation measures.
2505	4	Clear descriptions of future water quality monitoring and reporting programs are needed.	Delta water quality is already monitored at specific constituent compliance locations throughout the Delta. Please refer to Chapter 8, Water Quality of the Final EIR/EIS.See also Master Response 14 for more information on water quality.
2505	5	Both the Delta Independent Science Board (Delta ISB) and the Delta Stewardship Council (DSC) were charged by the California legislature in the 2009 Delta Reform Act to provide an independent review of the BDCP program. It is critical that the issues identified by both of these entities be fully addressed in the final BDCP/Water Fix EIRIEIS and the related California EcoRestore program. In its September 14, 2015, comments on the BDCP/Water Fix, the Delta ISB concluded that the current document "falls short ... as a basis for weighty decisions about natural resources. It leaves environmental impact and underlying science unclear by deferring content to the Final EIR/EIS.:.and by neglecting a number of problems inherited from the Previous Draft." Further, the Delta ISB calls for the more complete and clear assessment of the environmental impacts of the California WaterFix. The full letter is attached for your reference [ATT 1].	Although a viable alternative, please note that the BDCP (EIR/EIS Alternative 4) is no longer the preferred alternative. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. Alternative 4 remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 Public Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. Unlike the BDCP, Alternative 4A would not serve as a HCP/NCCP under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization under ESA Section 7 and CESA Section 2081(b). See RDEIR/SDEIS, Section 4, New Alternatives: Alternatives 4A, 2D, and 5A, and Master Responses 4 (Alternatives) and 5 (BDCP) for additional information. Please see responses to the Delta Independent Science Board letter, RECIRC 2546 in the response list of letters. For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31. The proposed project is a joint RDEIR/SDEIS prepared in compliance with the requirements of CEQA and

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			NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the BDCP Draft EIR/EIS, and expected Final EIR/EIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions. These other public agencies are referred to as responsible agencies and 20 trustee agencies under CEQA (State CEQA Guidelines Sections 15381 and 15386) and cooperating agencies under NEPA (e.g., USACE and EPA). For more information please see Section 1.1.5 in Chapter 1, Introduction of the RDEIR/SDEIS. See responses to comments in letters 1448 and 2546 regarding comments from the Delta ISB.
2505	6	Delta Plan and Delta Reform Act Consistency. Under existing law, DWR will need to certify that the final selected project is consistent with the Delta Plan. The Final EIR/EIS needs to provide the necessary findings and fulfill the requirements of California Code Section 85320(b)(2).	In April 2015 state and federal agencies announced a new sub-alternative—Alternative 4A (California WaterFix) —which replaced Alternative 4 (the proposed BDCP) as the state's proposed project. Alternative 4A reflects the state's proposal to separate the conveyance facility and habitat restoration measures into two separate efforts: California WaterFix and California EcoRestore. See Master Response 31 for more information about the Delta Reform Act. No issues related to the adequacy of the environmental impact analysis in the 2013 DEIR/EIS or 2015 RDEIS/SDEIS were raised.
2505	7	Comprehensive Project Description. The final EIR/EIS must include a clear and complete project description. As currently presented, essential operational aspects of the preferred project are contingent on the results of the Endangered Species Act and State Water Quality Control Board consultation processes. The final EIR/EIS must have a project description that is consistent with and fully informed by the regulatory requirements for the project.	The lead agencies respectfully disagree with the commenter's statement that the RDEIR/SDEIS is inadequate. The lead agencies believe that the proposed project is complete in their evaluation of impacts, direct and cumulative, that project description is complete and satisfies the requirements of NEPA, that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies agree that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Chapter 3 of the Final EIR/EIS for additional information on Proposed Project operations. Please see Master Response 28, and 5 and 29 for more information regarding operational scenarios and compliance with ESA, respectively.
2505	8	Evaluation and mitigation of impacts to unique Delta values. The recirculated DEIR/DEIS does not adequately evaluate or mitigate the cumulative impacts of the BDCP/Water Fix alternatives to agriculture, recreation, community character, aesthetics, and cultural resources and inappropriately defers identification of feasible and enforceable measures to mitigate some the impacts that were evaluated.	For information on cumulative impacts please see Master Response 9. Please see Master Response 22 for adequacy of mitigation measures.
2505	9	In closing, this recirculation process represents the final milestone before advancing to a final EIR/EIS and Record of Decision. It represents our final opportunity to provide formal public comments prior to the final phase of this historic planning effort. We appreciate the exhaustive efforts of both the state and federal administrations to	The comment is noted and does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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		complete this planning process so that a final project and proposal can be advanced sometime next year. It is essential to expeditiously resolve the outstanding issues identified in this comment letter in order for the administration to complete this process and provide assurances that the project will achieve California's co-equal goals. Please know that we do not believe the document has to be perfect before being sent out; rather our intent is to have these comments taken as suggestions for inclusion to improve the ability of decision makers to act on the best information available	
2505	10	ATT 1: RECIRC 2546	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS. All comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.
2506	1	The District recommends that the project proponent commit to entering into a VERA rather than expressing a non-enforceable commitment to a "good faith effort" to mitigate criteria pollutants. As stated in the District's comment letter issued on June 12, 2014 for the Draft EIR/EIS and July 5, 2013 for the Administrative Draft EIR/EIS the District would like to reiterate its recommendation. The RDEIR/SDEIS demonstrates through Mitigation Measure AQ-4a (page 22-299) the "DWR will undertake in good faith effort to enter into a development mitigation contract with San Joaquin Valley Air Pollution Control District in order to reduce criteria pollutant emissions generated by construction of the water conveyance facilities associated with BDCP within the San Joaquin Valley Air Pollution Control District." The District recommends that DWR commit to entering into a development mitigation contract prior to finalizing the EIR/EIS rather than expressing a non-enforceable commitment to a "good faith effort" to mitigate criteria pollutants. This would allow DWR to fully disclose to the public the extent of the actual mitigation proposed. Therefore the project proponent or DWR should engage in discussion with the District to adopt a Voluntary Emission Reduction Agreement (VERA) prior to the finalization and certification of the environmental document. The District has been contacted in the past to discuss the VERA but the communication has halted. The District encourages DWR to contact the District again as soon as practical to restart this process and expand the discussion into the negotiation of the terms of the VERA. Based on District's experience with entering into a VERA, ample amount of time beyond the mentioned two-month timeframe should be planned to discuss the details of the VERA	DWR is committed to working with the San Joaquin Valley Air Pollution Control District (SJVAPCD) and all other air districts in the Plan Area to reduce construction emissions and avoid adverse effects to regional and local air quality. As outlined under Mitigation Measure AQ-4a and discussed in Chapter 22, Air Quality and Greenhouse Gases, DWR proposes to mitigate air quality impacts through a Voluntary Emission Reduction Agreement (VERA) with SJVAPCD. While use of a VERA is DWR's preferred method for mitigating air quality impacts, the environmental document includes Mitigation Measure AQ-4b to provide additional flexibility and environmental protection. The measure is not intended to supersede a VERA with the SJVAPCD. Rather, it is identified as a complementary approach to ensure emissions are offset according to the performance standards established by the environmental analysis. If necessary, additional reductions may be achieved under Mitigation Measure AQ-4b through DWR-sponsored projects that do not overlap with programs covered by SJVAPCD incentive programs. Please refer to response to comment 773-1 for additional information.
2506	2	The development of an alternative mitigation strategy should be approved by the District prior to implementation. The RDEIR/RDEIS demonstrates through Mitigation Measure AQ-4b (page 22-301) "Should DWR be unable to enter into what they regard as a satisfactory agreement with San Joaquin Valley Air Pollution Control District by Mitigation Measure AQ-4b, or should DWR enter into an agreement with San Joaquin Valley Air Pollution Control District but find themselves unable to meet the performance standards set forth in Mitigation Measure AQ-4a, DWR will develop an alternative or complementary offsite mitigation program to reduce criteria	As described in the response to comment 773-1 and 77-2, DWR is committed to working with SJVAPCD to implement Mitigation Measures AQ-4a and AQ-4b. Use of a VERA (Mitigation Measure AQ-4a) is DWR's preferred method for offsetting construction emissions in excess of the federal de minimis thresholds and SJVAPCD CEQA thresholds. However, the environmental document includes Mitigation Measure AQ-4b to provide additional flexibility and environmental protection. If pursued, Mitigation Measure AQ-4b would establish a program complementary to the VERA to fund emission reduction projects through grants and similar mechanisms. DWR would develop pollutant-specific formulas to monetize, calculate, and achieve emissions reductions in a cost-effective manner. DWR would also conduct annual reporting to verify and document that emissions reductions projects achieve a 1:1 reduction with construction emissions to ensure

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		pollutant emissions generated by the construction of water conveyance facilities associated with BDCP." As commented before, the District would like to clarify that since the air quality impacts would be occurring within the jurisdiction of the District, the development of the alternative mitigation strategy should obtain approval from the District before implementation, which should include verification of the construction emissions data required to be submitted to Department of Water Resources by the contractor. The District has statutory authority over air quality and has developed plans to attain state and federal standards that include emissions inventories to identify the sources and quantities of air pollutant emissions, evaluate how well different control methods have worked, and demonstrate how air pollution will be reduced in the San Joaquin Valley (Valley). The District has developed incentive program around several core principles: cost effectiveness, integrity, effective program administration, excellent customer service and accountability. The goal of the incentive program is to assist the District in. improving air quality in the Valley. Furthermore, the District's incentive programs are regularly audited by independent outside agencies including professional accountancy corporations on behalf of the federal government, the California Air Resources Board (ARB), California Department of Finance and the California Bureau of State Audits. Using developer funds to reduce emissions through our incentive program allows the District to track and verify the emissions reductions achieved, which in turn allows the District to certify to project proponents that the mitigation has been achieved, lending the District's expertise in such matters to any necessary defense of the CEQA document and associated air quality mitigation. On the contrary, mitigation efforts performed by others, outside the District's oversight, have generally come up far short in quantity of emissions reductions generated, and in verifiability of those reductions, leaving the CEQA Lead Agency vulnerable to legal action. The District recommends the mitigation for the BDCP be carried out via Mitigation Measure AQ-4a (i.e., entering into a Voluntary Emission Reduction Agreement with the District) and thus the District recommends that the applicant commit to entering into a Voluntary Emission Reduction Agreement instead of committing into a good faith effort to do so.	claimed offsets meet the required performance standard. If DWR elects to pursue Mitigation Measure AQ-4b, they will do so in consultation with SJVAPCD, California Air Resources Board (ARB), and other relevant air quality management agencies.
2506	3	The District recommends the RDEIR/RDEIS include a discussion regarding fugitive dust resulting from the potential overdraw of water, including all feasible mitigation measures to reduce any resulting air quality impacts that are found to be significant. The RDEIR/RDEIS does not discuss fugitive dust resulting from the potential overdraw of water, thus resulting in a potentially dry basin. Although the air quality in the Valley has improved significantly, the Valley faces many air quality challenges to meet the health-based air pollution standards. The District is currently designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and attainment for PM2.5 for the federal air quality standards. At the state level, the District is designated as nonattainment for the 8-hour ozone, PM1 0, and PM2.5 air quality standards. As commented before, the District recommends the RDEIR/RDEIS include such discussion and include all feasible mitigation measures to reduce any air quality impacts of such an overdraw that are found to be significant.	A qualitative discussion of fugitive dust resulting from potential overdraw of water is included in Chapter 30, Growth.

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2506	4	The District has adopted several attainment plans in addition to the ones discussed in the RDEIR/SDEIS and suggests that these additional plans be included. Appendix A, Chapter 22 discusses the District's various air quality plans, includingthe 2007 Ozone Plan and 2008 PM2. 5 Plan. However, the District has also adopted the 2012 PM2.5 Plan, 2013 Plan for the Revoked 1-Hour Ozone Standard, and 2015 Plan for the 1997 PM2.5 Standard. Additional information on the District's attainment plans can be found online at: 2012 PM2. 5 Plan: http://www.valleyair.org/Air Quality Plans/PM25Pians2012.htm 2013 Plan for the Revoked 1-Hour Ozone Standard: http://www. valleyair.org/Air Quality Plans/Ozone-OneHourPian-2013. htm 2015 Plan for the 1997 PM2.5 Standard: http://www.valleyair.org/Air Quality Plans/PM25Pians2015.htm	The Public Draft EIR/EIS and RDEIR/SDEIS were drafted over a period of several years. The environmental setting has been updated to reflect the most recent SJVAPCD attainment plans, as of the time of this response.
2506	5	Since the Health Risk Assessment analysis is based on the 2015 Office of Environmental Health and Hazard Assessment guidance, the risk estimate for the project within the District's jurisdiction should be compared to the significance threshold of 20 in a million. The analysis uses the methodology based upon the 2015 Office of Environmental Health and Hazard Assessment guidance manual in conjunction with the District's previous significance threshold of 10 in a million. The District's implementation of the 2015 Office of Environmental Health and Hazard Assessment guidance utilizes a new significance threshold of 20 in a million. Since the analysis is based on the 2015 Office of Environmental Health and Hazard Assessment guidance, the risk estimate for the project within the District's jurisdiction should be compared to the significance threshold of 20 in a million to be consistent.	At the time of preparation of the Health Risk Assessment, the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts did not include a revised significance threshold of 20 in a million. Therefore, the significance threshold of 10 in a million cancer risk was used, consistent with the current district guidance at the time of preparation.
2506	6	The project will be subject to all applicable District rules and regulations including Rule 9510 (Indirect Source Review). A portion of the project will occur within the District's air basin, specifically in San Joaquin, Stanislaus and Merced Counties; therefore, will be subject to District rules and regulations including Rule 9510 (Indirect Source Review). Since the list of rules in the RDEIR is not all encompassing, the District would like to provide the following additional information: In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). Certain components of this project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review), and therefore may require District permits. Prior to commencement of construction for these, the project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (209) 557-6446. The project would equal or exceed 9,000 square feet of space within the District boundary;	Section 22.2.3 of the RDEIR/SDEIS identifies potential rules that may apply to the proposed project. The list has been revised to include Rules 2010, 4002, and 9510, per the district's request (Rule 2201 was already referenced). Compliance with air district rules, including Rule 9510, is considered a condition of project approval.

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		therefore, the District concludes the project is subject to Rule 9510. District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees before issuance of the first building permit, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm. The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (209) 557- 6446. Current District rules can be found online at the District's website at: www.valleyair.org/rules/1 ruleslist.htm.	
2507	1	As a fisherman I am extremely concerned about the effect of the Delta Tunnels on salmon and other pelagic fish that rely on the Delta.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please see Master Response 17 regarding biological resources.
2507	2	The recent decimation of two years of winter-run salmon has been caused in part by mismanagement of water, specifically by exporting too much water from north state reservoirs and leaving too little for the fish to survive. The Delta Tunnels would only allow more transfers, possibly resulting in the extinction of these magnificent fish.	For information on export levels and transfers for each alternative, please see Chapter 5, Water Supply. For information on effects of water exports on fish, please see Chapter 11, Fish and Aquatic Resources.
2507	3	Listed winter-run salmon (and Delta Smelt, as well) are already jeopardized without the tunnels. They would be placed in even greater jeopardy with the tunnels in place.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2507	4	Because the tunnels will take water around the Delta rather than through it, salt water intrusion will become more frequent. This is already affecting the Delta, but it will become worse and further degrade the Delta environment, rather than enhance it as the co-equal goals of the Delta Reform Act of 2009 require.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2507	5	The major benefit of the tunnels would accrue to water districts and farmers in the west side of the San Joaquin Valley while the major costs to repair the environmental damage they would cause would fall to the taxpayers. This fundamental unfairness alone should cause you to remove your support of this disastrous plan.	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow

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			for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5 for more information on costs and funding.
2507	6	The decision-making process (from the outset) has tilted in favor of increasing water exports from the Delta. This is mostly due to the composition of the group that devised the Delta tunnels plan. Delta residents and others with better ideas were not included in the planning. Once again, this fundamental inequity should cause you to remove your support of this plan.	For more information regarding changes in delta exports please see Master Response 26. DWR staff has made best efforts to try to maintain contact with interested citizens. In 2013, DWR staff and the public outreach team conducted a series of "Delta Office Hours" in communities throughout the Sacramento-San Joaquin Delta. In many instances, attendees had questions outside the scope of the BDCP that staff committed to following up on. Such comments and questions were recorded and DWR staff attempted to follow up with participants. In some circumstances, such as where DWR staff was being unable to identify whom to follow up with when participants met in small groups, DWR staff was not able to follow-up with all participants. Contact information for the DWR Landowner Liaison was provided to all participants, and was made available online for any Delta Landowners to contact outside of the scheduled office hours. Please see Master Response 42 for additional information on the public comment period.
2507	7	Considering a through-Delta project that would transfer water through the Delta before exporting it to farms in the San Joaquin Valley. This would automatically protect the Delta by removing the incentive to export water when salinity intrusion extends too far, precisely with the Delta needs protection from excessive transfers.	The alternatives included in the FEIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. 15 alternatives and 3 new subalternatives were analyzed in the EIR/S and the RDEIR/RSEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4.
2508	1	One of the major faults of the RDEIR and California Water Fix is its lack of presenting informative and clearly articulated information to the public. As required, the purpose of an EIR is not only to protect the environment but also to show the public that it is being protected. Neither the RDEIR nor the two previously held July 2015 public workshops came close to achieving that requirement. The renaming of the Bay Delta Conservation Plan (BDCP) to California Water Fix has resulted in public confusion. To compound this confusion, the RDEIR cross references the BDCP with multiple figures, appendices, and text resulting in a confusing mix of new, old, and partially edited sections. Failure to integrate text, figures, and appendices violates CEQA and NEPA and that alone should halt the environmental review process until one consistent document is provided that allows the public to be engaged.	For comments pertaining to the size and complexity of the document, please refer to Master Response 38. Please refer to Chapter 32 of the Final EIR/EIS and Master Response 40 for information regarding outreach conducted for California WaterFix (and previously the BDCP). Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. Alternative 4 (AKA BDCP) remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 BDCP Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts.
2508	2	The Delta Caucus' prior comments focused on the tremendous damage that the BDCP would inflict on Delta agriculture. The revised Alternative 4, described in the Recirculated Draft, makes minor changes to the BDCP Preferred Alternative 4, but does not result in any significant reduction in negative impacts to Delta agriculture. The new alternatives 4A, 2D, and 5A eliminate negative impacts to Delta agriculture associated with the conversion of and restrictions on Delta agricultural caused by the implementation of BDCP Conservation	Comment is acknowledged but doesn't raise any specific issue requiring response. As noted above, Alternative 4A is now the preferred alternative. Please refer to Master Response 18, which discusses agricultural impacts and how mitigation would be approached in more detail.

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		Measures 2-21. However, new alternatives 4A, 2D and 5A will still inflict substantial negative impacts on Delta agricultural resources.	
2508	3	New alternatives described in the RDEIR are inconsistent with County General Plans, the Delta Protection Commission's Land and Resource Management Plan and its Delta Economic Sustainability Plan, and the Delta Stewardship Council's Delta Plan.	The land use section of the EIR/S addressed land use consistency. No issues related to the adequacy of the environmental impact analysis in the CEQA and NEPA documents were raised.
2508	4	The Delta Reform Act, §29702 states, "The co-equal goals shall be achieved in a manner that protects and enhances the Delta's unique cultural, recreational, natural resources and agriculture as an evolving place." The new alternatives described in the RDEIR do not achieve the co-equal goals as defined in the Delta Reform Act of 2009, and do major damage to agricultural resources of the Delta by: 1. Converting agricultural lands to industrial uses 2. Disrupting agricultural operations during construction 3. Damaging agricultural infrastructure 4. Changing flow patterns downstream of diversion sites The California Water Fix and the new alternatives 4A, 2D and 5A will violate plans and laws enacted to protect agricultural resources in the Delta.	Please refer to Master Response 24, Delta as a Place, for additional details regarding the California WaterFix and compliance with applicable Delta Reform Act requirements. Please also see Master Response 31. Please refer to Master Response 18, which discusses agricultural mitigation requirements and approach in more detail.
2508	5	As cited on page 11 of the California Department of Water Resources (DWR) permit (33 C.F.R. 325) application to the Army Corps of Engineer submitted on August 24, 2015, "Changes in water inflow and outflow throughout the Delta affect the water quality within the Delta, particularly with regard to salinity. It has been estimated that seawater is pushing 3 to 15 miles farther inland since development began in the Delta over 159 years ago (Contra Costa Water District 6/2010)." Figure 7b of the Delta Vision Report details a steep decline in Delta outflow from 81% of unimpaired flow during 1930-1949 to 48% between 1990-2005. During the same time periods, State Water Project (SWP) and Central Valley Project (CVP) exports (not including Contra Costa Water District diversions) went from 0 to 17% and in-Delta watershed diversions (before reaching the Delta) increased from 14% to 31% (some of these are exported from the Delta watershed). As a result, water quality in the Delta and the San Francisco Bay has been severely impacted.	No issues related to the adequacy of the environmental impact analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/DEIS were raised.
2508	6	The importance of protecting water quality in the Delta has resulted in plans, decisions and contracts establishing water quality and flow standards. The SWP and CVP are responsible for achieving both flow and salinity standards. DWR is responsible for maintaining standards of the North Delta Water Agency Contract. Implementation of the preferred Alternative 4 as described in the Draft BDCP, would result in reduced Delta outflow, increased seawater intrusion, and frequent violations of water quality standards as described in the United States Environmental Protection Agency comment letter dated August 26, 2015. The California WaterFix RDEIR claims that water quality impacts have been reduced to less than significant. This conclusion is reached by adjusting water quality models used by the BDCP and by removing Conservation Measures 2-21, even though it is expected that some of the restoration and conservation activities will still occur under Biological Opinions and	With regards to water quality, please see Master Response 14. With regards to modeling, please see Master Response 30. Although not a comment requiring a response under CEQA or NEPA, regarding the contract between DWR and NDWA, DWR will continue to meet its contract obligations.

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		California EcoRestore. As pointed out in comments submitted by MBK Engineers and Dan Steiner, the BDCP model provides "very limited useful information to understand the effects of the BDCP." Furthermore, modeling used in the California WaterFix RDEIR is not reliable as acknowledged on page 2-10 lines 13-15 of the RDEIR, "Finally understanding the uncertainties and limitations in modeling." The very optimistic and unsubstantiated conclusion on RDEIR page 2-10 lines 25-27 reads, "Thus, it is likely that some objective exceedances simulated in the modeling would not occur under the real-time monitoring and operational paradigm that will be in place to prevent such exceedances." Project proponents continue to assert the California WaterFix will be operated in accordance with Biological Opinions and D-1641, and therefore, current conditions in the Delta will be maintained and significant impacts will be avoided. However, the current water quality conditions required by the Biological Opinions and D-1641 were developed to govern the current export facilities and do not account for changes in operation by the California WaterFix. Because the California WaterFix will change flow and water quality in and through the Delta, the impacts need to be understood and clearly articulated. Instead, the RDEIR relies on the BDCP's inaccurate model and assumptions concluding that impacts to water quality will be less than significant.	
2508	7	The BDCP DEIR and the California Water Fix RDEIR fail to address consistency with the State Plan of Flood Control as required by Water Code §85320 (b)(2)(E) which requires that BDCP studies include "the potential effects on Sacramento River and San Joaquin River flood management." The BDCP DEIR and California Water Fix RDEIR rely on inadequacies of Delta levees as a primary excuse for building the twin tunnels. The California Water Fix is a dual conveyance project (through Delta and North Delta Diversion), and levees will perform a key role in project performance. Levee inadequacies as detailed in the BDCP DEIR and California Water Fix RDEIR are not addressed, and therefore, the project and the RDEIR are incomplete.	Please see Chapter 2, FEIR/EIS, for the BDCP/CWF purpose and need, and Appendix 6A Sections 6A.2 and 6A.3 for discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the BDCP/CWF. Levees are an important public safety resource and the proposed project would not change levee policy or replace ongoing programs and grant projects aimed at facilitating and supporting levee improvements in or outside the Delta. It recognized that levee maintenance and safety in the Delta is an important issue for the residents of the Delta and for statewide interests. Also, see Section 6A.2.1.3 for a discussion on DWR consistency with the State Plan of Flood Control (SPFC), and Section 6A.1.2 for information on project consistency with USACE, CVFPB, and DWR flood standards and regulations.
2508	8	With the exception of the reduced impacts resulting from removing BDCP conservation measures 2-21 and the questionable reclassification of some impacts from significant and unavoidable to less than significant, very little has changed from the Delta Caucus' previous comments. The California WaterFix will have tremendous negative unmitigated impacts on Delta agricultural resources. So-called short-term impacts will result in an irreparable, permanent loss of agricultural resources, irrigation water of sufficient quality to some of the strongest priority users will be impaired, productive and diverse agricultural land will lie fallow, businesses that depend on agriculture will close, and agriculture employment will decline. While some of these collective impacts are recognized and discussed in Section 5.2.1.10 of the RDEIR, there is no effort to quantify or reduce the combined impacts. Proposed mitigation, such as developing an Agricultural Land Stewardship Plan, is inadequate and the combined negative impacts remain significant and unavoidable. All four agricultural impacts, AG1-4 RDEIR pages ES82-83, are recognized as significant and unavoidable. In addition, as detailed on pages ES 88-90, there are 19 impacts to the Delta economy. One is categorized as less than significant, and the remaining 18 are categorized as no impact. This lack of regard for agricultural resources and the Delta economy will result in economic devastation and will destroy the viability, sustainability and resiliency of the Delta economy, its businesses, communities, and the livelihood of its residents.	The vital significance of agriculture in the Delta is acknowledged. Please refer to Master Response 18, which discusses in more detail agricultural impacts and how mitigation would be approached. The temporary change in use of important farmland during construction activities would prevent cultivation of the affected land for the duration of the construction, and thus cause economic effects for that limited time. The affected landowners would be reimbursed for any fee title or other property interests acquired by a public entity during the course of preparing for construction and other siting activities. However, after temporary construction is completed, the soil resource would be restored to preconstruction quality and farmable condition. However, if circumstances limit the ability to restore the land and full restoration is not possible, additional mitigation for the resource impact would occur.
2508	9	Even though some of the unidentified impacts described in the Delta Caucus' previous comments to the BDCP DEIR/EIS have been resolved, the California WaterFix RDEIR is	With regards to water quality, please see Master Response 14. With regards to mitigation, please see Master

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		incomplete because it has not recognized, analyzed, and mitigated for unidentified impacts 1, 2, 3, 4, 6, 9, and 10 as stated in the attached comment letter. In addition, water quality impacts as presented in the California WaterFix RDEIR are inadequate and incomplete. Without meaningful and accurate analysis of how the California WaterFix will change flow and water quality throughout the Delta, conclusions that water quality impacts are less than significant are unsubstantiated. Water flow and quality analysis should also include expected actions in the Yolo Bypass as required under the Biological Opinions and California EcoRestore.	Response 22.
2508	10	According to DWR's August 24, 2015 application to the Army Corps of Engineers, 2,099,259 cubic yards of tunnel muck will be generated during construction of California WaterFix (page 12). The tunnel muck, now called reusable tunnel material (RTM), will be stacked from 6 to15 feet high (page 6) in 11 disposal sites (page 4). DWR indicates, that if feasible, the tunnel material will be used during construction of various habitat restoration efforts (page 6). There are no provisions for permanently storing or disposing of tunnel muck if reuse is infeasible. In contrast, the California WaterFix RDEIR chapter 3 (page 3-43), states that as much as 31 million cubic yards of tunnel muck will be excavated and recognized as a potential problem. The magnitude of the impact is minimized by assuming the material can be reused. The claim made in the RDEIR, page D.3-98 lines 10-11, that more than 99% of the tunnel muck will be suitable for reuse is unsubstantiated and is contradicted by designing storage areas for either permanent or temporary storage. Page D3-96 lines 25-26 indicates temporary storage areas will be designed for RTM while lines 30-31 state that material will be temporarily or permanently stored in designated storage areas. On page D.3-99, lines 18-19 RTM will be placed in either lined or unlined storage areas suitable for long-term storage at an assumed depth of 6 feet (page D.3-97 line 29). In addition, the provision for reuse is qualified by terms such as "if feasible" and "to the extent practicable". The definition of RTM on page D.3-96 line 19 describes RTM as "…appropriate for reuse based on chemical characterization and physical properties." Piles of 31 million cubic yards of tunnel muck stacked 15 feet high will result in significant negative impacts not recognized or provided for in the California WaterFix RDEIR.	This comment refers to text within Appendix D of the RDEIR/SDEIS which shows only revisions made to the Draft BDCP document. That document is not currently being updated due to the fact that the proposed project no longer includes an HCP component. If a BDCP alternative is ultimately chosen, that document will be updated at that time. Under Alternative 4A (the proposed project), the revised estimates of Reusable Tunnel Material (RTM) can be found in the recirculated documents in Table 3C-1 "Construction Assumptions for Water Conveyance Facilities" Appendix 3C, which details the revised estimates for RTM storage acreage, volume, and potential reuses. Construction of the proposed conveyance facility tunnels under Alternative 4 and 4A would result in approximately 31 million cubic yards of RTM. The Final EIR/EIS identifies the potential for re-use of these materials, but for purposes of impact analyses has assumed that the locations for RTM storage are permanent because no specific use of RTM has been identified and re-use of RTM is not required for implementation of the project. Mapbook figures M3-4 and M14-7 show potential RTM storage locations. Final locations for storage of RTM would be selected based on guidelines presented in Appendix 3B Environmental Commitments, section 3B.2.18 "Disposal and Reuse of Spoils, Reusable Tunnel Material (RTM), and Dredged Material" starting on page 3B-50, also in Appendix A. Nevertheless, environmental commitments have been incorporated into project alternatives that describe the conditions for reuse of RTM to avoid and reduce potential environmental effects (see Appendix 3B, Environmental Commitments, AMMs and CMs, Section 3B.2.18 Disposal and Reuse of Spoils, RTM and Dredge Material). California Department of Water Resources (DWR) completed a preliminary laboratory testing program to evaluate the feasibility of excavated tunnel materials (also known as reusable tunnel material, RTM) for potential reuses including construction fill. The laboratory test results indicate that the RTM would comply with requirements of Title 23 of California Code of Regulations (Title 23) for levee fill materials. A copy of the RTM testing report is available on the BDCP website: http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Reusable_Tunnel_Material_Testing_Report.sflb.ashx Please also refer to Master Response 12 regarding how excavated tunnel material would be reused and/or stored. The impacts of the RTM storage as well as mitigation for these impacts is discussed throughout the Final EIR/FEIS, including in Chapter 12, Terrestrial Biological Resources; Chapter 13, Land Use; Chapter 14, Agricultural Resources; Chapter 15, Recreation; and Chapter 17, Aesthetics and Visual Resources.
2508	11	Finally, the Delta Caucus' previous comments pointed out that the CEQA required Draft Implementation Agreement was not available. Since then, a Draft Implementation Agreement has been released but is incomplete because it does not include operating information and financial commitments. In addition, the Draft Implementation Agreement does not seem to be consistent with changes in new alternatives as contained in the California WaterFix. A complete draft must be available for public review and comment and	The comment suggests that the Draft Implementing Agreement issued in 2014 should include operating information and financial commitments and that another public comment period is necessary after that information is added. The Draft Implementing Agreement for the proposed project was made available for public review on May 30, 2014 and the public review period was extended by 46 days until July 29, 2014, in order to accommodate

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		should restart the beginning of the public comment period.	a 60-day review period consistent with the California Natural Community Conservation Planning Act. As described in the May 5 2014 posting to the BDCP website, the delayed publication of the draft Implementing Agreement was related to availability of key individuals whose drought response duties required significant time commitments, resulting in delays in finalizing the draft Implementing Agreement. Implementing agreements are a requirement under the California Natural Community Conservation Planning Act (NCCPA), and are routinely executed under the ESA Section 10 (HCP) permitting process. Since the current proposed project is no longer a NCCP or HCP, an implementing agreement was not released with the RDEIR/SDEIS or final EIR for the project.
2508	12	The Delta Caucus' prior comment letter pointed out that CEQA requires that mitigation be feasible, fully enforceable, adequately financed, and monitored. Mitigation measures that are discretionary, deferred, unfunded and that may not be feasible are not adequate mitigation. In addition, because of inadequate analysis especially relating to water quality and tunnel muck impacts, agricultural, economic, water quality, and aesthetic impacts need to be reassessed, and adequate mitigation needs to be developed. AG-1 "develop an Agricultural Lands Stewardship Plan (ALSP) to maintain agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones" remains the primary mitigation measure for agricultural and economic impacts. As pointed out in prior comments, the ALSP is merely conceptual and does nothing to mitigate for the very real impacts that Delta family farmers will face. In fact, as presented in the BDCP DEIR/EIS, the ALSP could result in advancing isolated conveyance rather than mitigating for impacts to agricultural resources. Mitigation measure AG-1 is inadequate because the ALSP is not defined, not feasible, not enforceable, and not funded.	Please refer to Master Response 22 regarding adequacy of mitigation measures and CEQA requirements. Also refer to Master Response 18 regarding the approach to agricultural impact mitigation. Mitigation Measure AG-1 (Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones) is a 3-part mitigation measure. The first part of this mitigation measure (i.e., Promote Agricultural Productivity of Important Farmland) addresses actions that would be taken to maintain agricultural productivity of the sites involved. Mitigation Measure AG-1c (Consideration of an Optional Agricultural Land Stewardship Approach or Conventional Mitigation Approach), which the commenter is referring to, represents a mitigation approach that would be implemented to mitigate impacts that cannot be otherwise mitigated by Mitigation Measure AG-1a or Mitigation Measure AG-1b. Mitigation Measure AG-1c requires that either a "Conventional Mitigation Approach" or an "Optional Agricultural Land Stewardship Approach" be implemented. The conventional approach involves the purchase of interests in agricultural land that would require the preservation and/or enhancement of land of similar agricultural quality to the land being lost to agricultural uses under the BDCP actions, which would help maintain agricultural productivity. The proposed Optional Agricultural Land Stewardship Approach does not focus principally on physical effects, but on maintaining agriculture and economic viability in the Delta, taking into consideration the desire of individual Delta farmers to continue working on their land, the long-term viability of regional agricultural economies, the economic health of local governments and special districts, and the Delta as an evolving place. It is not stated that the optional Agricultural Land Stewardship will or must "provide for production of food and fiber". It is noted, however, that where Mitigation Measures AG-1a and AG-1b are not sufficient to mitigate to a less than significant or adverse level the impacts from the conversion of Important Farmland or of land subject to Williamson Act contracts or in Farmland Security Zones, the project managers will consult with all of the following (i) the County in which the affected property is located; (ii) the owner(s) and/or operator(s) of said property; (iii) the California Natural Resources Agency; (iv) the California Department of Water Resources; (v) the Central Valley Flood Protection Board; (vi) the California Department of Conservation; (vii) the California Department of Food and Agriculture; (viii) the California Department of Fish and Wildlife; (ix) the Delta Stewardship Council; (x) the California Delta Protection Commission; and (xi) the Delta Conservancy; (xii) the United States Fish and Wildlife Service; (xiii) the National Marine Fisheries Service; and (xiv) the U.S. Department of Agriculture, including the Natural Resources Conservation Service. Where the entities listed in "I" and "ii" above have a preference for participating in an optional ALSP, the BDCP proponents shall attempt to develop one acceptable to the County, the land owner and/or operator, CDFW, USFWS, and NMFS. The optional ALSP would seek opportunities to protect and enhance agriculture in the Delta as part of the project landscape and focus on maintaining economic activity on agricultural lands instead or in conjunction with the Conventional Mitigation Approach for purposes of CEQA/NEPA mitigation.

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			Appendix 14B Delta Agricultural Stewardship Strategies, discusses implementation mechanisms of the ALSP. Mitigation Option 2 includes the Conventional Mitigation Option, which incorporates the potential use of Agricultural Conservation Easements (ACEs) as mitigation Please also refer to Master Response 18, which discusses in more detail agricultural impacts and how mitigation would be approached.
2508	13	Since 2006, a great deal of effort has been spent designing what today has become the twin tunnels project, Alternative 4 in the BDCP. Alternative 4 has now been modified to become alternative 4A, the preferred alternative of the California WaterFix. DWR has already applied for permits to divert water in the north Delta and has already applied to the Army Corp of Engineers in preparation for constructing California WaterFix. The twin tunnels project is being advanced even before public comment closes on the California WaterFix RDEIR. DWR has ignored or rejected all alternatives not involving tunnels and north Delta diversion. All alternatives as presented in the BDCP and as proposed by the public have not been studied in equal detail. DWR continues to implement the twin tunnels project before the close of comments on the California WaterFix, implying that CEQA/NEPA public participation is simply a formality. The CEQA/NEPA process is meant to provide meaningful participation and input into this project that will have long-term environmental, economic and human impacts on the Delta, its residents, and the citizens of California.	15 alternatives and 3 new sub alternatives were analyzed in the EIR/EIS and the RDEIR/RSEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the BDCP EIR/EIS and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4. For comments pertaining to the permitting process, please refer to Master Response 45. Please refer to Chapter 32 of the Final EIR/EIS and Master Response 40 for information regarding outreach conducted for California WaterFix (and previously the BDCP). More information on how DWR has developed the project in an open and transparent manner is provided in Master Response 41.
2508	14	California WaterFix will devastate the Delta. The twin tunnels project will not make California's water supply more reliable, will not restore the Delta environment and will not reduce reliance on the Delta. The twin tunnels project will damage Delta resources to include agriculture and will waste valuable resources which could be employed to implement projects to advance water reliability for California - projects that impact the supply/demand equation by reducing demand and increasing supply. The Delta Caucus believes that there are more efficient and effective ways to improve water reliability for California and improve conditions in the Delta and remains committed to ensuring that Delta agricultural resources are protected and enhanced in accordance with the Delta Reform Act of 2009.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project, Master Response 4 regarding the selection of alternatives analyzed, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.
2508	15	ATT 1: Previosly submitted comments and questions for Draft BDCP by Delta Caucus.	This comment describes an attachment to the comment letter. Please see the table of comments within the Final EIR/EIS for specific comments and responses.
2509	1	Predetermination of Action to Construct and Operate an Isolated Conveyance Facility: The Decision to Proceed with an Isolated Conveyance, i.e., Peripheral Canal/Tunnels, as Part of the Plan Has Been Made in Advance of the Analysis and Preparation of the Draft EIR/EIS and RDEIR/SDEIS Destroyed the Impartiality for a Good Faith Effort at Full Disclosure and Analysis of Impacts, Alternatives and Mitigation. NEPA requires full disclosure of the potential effects of major actions proposed by federal agencies and accompanying alternatives, impacts and possible mitigation. NEPA also requires that environmental concerns and impacts be considered during planning and decision making so that steps may be more easily taken to correct or mitigate the impacts of an action. Compliance with NEPA should result in more informed decisions and the opportunity to avoid or mitigate for potential environmental effects before an action is	DWR and Reclamation, lead agencies for CEQA and NEPA, respectively, have made no decisions regarding approval of a project alternative. Those decisions will be made as part of the notice of determination and record of decisions processes at the end of the CEQA and NEPA environmental review processes, respectively. DWR and Reclamation have identified Alternative 4A as the preferred CEQA and NEPA alternative, as disclosed in the RDEIR/SDEIS and this Final EIR/EIS. Please see Master Response 4 for a discussion of alternative development, the appropriateness of identifying a preferred alternative, and also addresses how the lead agencies have not made any predeterminations on the proposed project.

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		implemented. The NEPA process is intended to identify and evaluate alternatives in an impartial manner. (See Reclamation's NEPA Handbook dated February 2012.)	
2509	2	CEQA requires adequacy, completeness and a good faith effort at full disclosure. The EIR is to inform the decision makers and the public of the environmental impact of proposed actions. (See CEQA Guidelines sections 15002 and 15003.) The purposes include identifying ways to avoid or significantly reduce environmental damage and preventing significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures. The environmental review for BDCP and now the California WaterFix has been orchestrated to justify the new Sacramento River Intakes and the Isolated Conveyance Facility. Such actions reflect bad faith and have resulted in inadequate disclosure and analysis of impacts, alternatives and mitigation.	The EIR/EIS analyses present hundreds of potential effects of the water conveyance facilities on a wide range of resources as required by CEQA and NEPA. Where effects are identified as adverse or significant, mitigation measures, environmental commitments, or avoidance and minimization measures are presented to reduce physical environmental effects to the extent feasible. Please see Master Response 4 for a discussion of alternative development and the appropriateness of identifying a preferred alternative. Information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40. More information on how DWR has developed the project in an open and transparent manner is provided in Master Response 41. See also Final EIR/EIS Chapter 32, Public Involvement, Consultation, and Coordination.
2509	3	Participation in the BDCP Steering Committee was conditioned on agreement to The Bay Delta Conservation Plan Points of Agreement for Continuing into the Planning Process dated November 16, 2007, which includes agreement to new points of diversion on the Sacramento River and an isolated conveyance facility. The agreement provides: "2.3 Conveyance Facilities: The Steering Committee agrees that the most promising approach for achieving the BDCP conservation and water supply goals involves a conveyance system with new points of diversion, the ultimate acceptability of which will tum on important design, operational and institutional arrangements that the Steering Committee will develop and evaluate through the planning process. The main new physical feature of this conveyance system includes the construction and operation of a new point (or points) of diversion in the north Delta on the Sacramento River and an isolated conveyance facility around the Delta. Modifications to existing south Delta facilities to reduce entrainment and otherwise improve the State Water Project's (SWP) and Central Valley Project's (CVP) ability to convey water through the Delta while contributing to near and long-term conservation and water supply goals will also be evaluated. This approach may provide enhanced operational flexibility and greater opportunities for habitat improvements and fishery protection. During the BDCP process, the Steering Committee will evaluate the ability of a full range of design and operational scenarios to achieve BDCP conservation and planning objectives over the near and long term, from full reliance on the new facilities to use of the new facilities in conjunction with existing facilities." (Exhibit 2) Excluded from such planning process agreement is design and operation of the SWP and CVP without an isolated conveyance facility and/or new intake facilities on the Sacramento River. Exhibit 1 is a copy of the January 27, 2009, letter from Karen Scarborough, Undersecretary of the State of California Resources Agency and Chair of the BDCP Steering Committee to Dante John Nomellini, Manager and Co-Counsel of the Central Delta Water Agency requiring such consent. The letter provides: "As you are also aware, consent to the 'Points of Agreement' and other prior decisions of the Steering Committee is requisite for a seat on the Steering Committee." Exhibit 2 is a copy of The Bay Delta Conservation Plan: Points of Agreement for Continuing into the Planning Process (November 16, 2007).	The comment appears to be provided in support of assertions in Comments 1 and 2. Please see responses to Comments 1 and 2, above. Information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40. More information on how DWR has developed the project in an open and transparent manner is provided in Master Response 41. See also Final EIR/EIS Chapter 32, Public Involvement, Consultation, and Coordination.

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		Exhibit 3 is a copy of the August 26, 2008, letter from Dean Ruiz, attorney for the Central Delta Water Agency, to Karen Scarborough requesting membership on the BDCP Steering Committee. Exhibit 4 is a copy of the November 13, 2008, letter from Dante John Nomellini, Manager and Co-Counsel of the Central Delta Water Agency, to Karen Scarborough, et al. stating willingness to execute the October 6, 2006, Planning Agreement but disagreeing with the provision in the November 16, 2007 "Points of Agreement."	
2509	4	The Department of Water Resources as lead agency for CEQA and the United States Department of Interior's Bureau of Reclamation as a co-lead agency under NEPA are both signatories to the March 2009 Memorandum of Agreement [MOA] Regarding Collaboration on the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program [DHCCP] in Connection With the Development of the Bay Delta Conservation Plan. The Memorandum includes the above referenced November 16, 2007, Points of Agreement to construct and operate an isolated conveyance facility as Exhibit 2 thereto. Said Memorandum is Exhibit 5. DWR and the USBR are both signatories to the December 15, 2011, First Amendment to the Memorandum of Agreement Regarding Collaboration on the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program In Connection With the Development of the Bay Delta Conservation Plan. Said First Amendment confirms the ongoing commitment to the BDCP and DHCCP including the March 2009 MOA which is Exhibit 5 and further references in paragraph J. the November 2007 "Points of Agreement." The First Amendment dated December 15, 2011, is Exhibit 6.	This comment identifies an MOA and Amendments between DWR and Reclamation. No comments on the Draft EIR/EIS or RDEIR/SDEIS are provided and no additional response is possible.
2509	5	The Draft EIS/EIR is written in a manner advocating the Conservation Strategy of the BDCP which is to construct and operate an isolated conveyance as a standalone conveyance or as part of dual conveyance and is evidence that the decision is predetermined. The lack of objective and impartial presentation and analysis is apparent. The Executive Summary for the Bay Delta Conservation Plan at page 10 sets forth the Conservation Strategy for "Water Flow and Conveyance" as follows: "Water Flow and Conveyance Water flow and conveyance conservation measures provide for the development and operation of new water conveyance infrastructure and the establishment of operational parameters associated with existing and new facilities. New north Delta intake facilities along the Sacramento River will divert water through state of the art positive barrier fish screens into an isolated tunnel/pipeline to the south Delta. In conjunction with the existing south Delta facilities (referred to as dual operations), this improved operational flexibility will improve conditions for covered fish species and restore water supply reliability. Water diversion rates and bypass flows in the Sacramento River at the north Delta diversions will be informed by seasonal movement patterns of covered fish species. The conservation measures summarized in the following sections are discussed in detail in Chapter 3, Conservation Strategy." The Executive Summary for the BDCP Draft EIR/EIS (November 2013) at page ES-1, paragraph 3 provides: "The BDCP is a comprehensive conservation strategy for the Sacramento-San Joaquin Delta (Delta) to advance the planning goal of restoring ecological functions of the Delta and	In order to craft a reasonable range of alternatives sufficient to meet the dictates of CEQA, lead agencies are directed to identify a project's objectives, similar to the project's purpose and need in NEPA parlance. These purpose statements are used to guide the scoping and alternatives development processes and frame the sufficiency of the environmental analysis. Please see Master Response 4, identification of a preferred project does not serve to undermine the sufficiency of the CEQA and NEPA public disclosure and review processes.

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		improving water supply reliability in the state of California. The conservation strategy is designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. The BDCP reflects the outcome of a multiyear collaboration between DWR, Reclamation, state and federal fish and wildlife agencies, state and federal water contractors, nongovernmental organizations, agricultural interests, and the general public. The BDCP sets out a comprehensive conservation strategy for the Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework through the following. -New and/or modified state water conveyance facilities and operation of the SWP and the CVP in the Delta." At page ES-2, it is provided: "The conservation strategy is based on the best available science and was built upon the following broad conservation goals." These statements issued in advance of the completion of the EIRIEIS process reflect the predetermination and intended lack of objectivity in the preparation of the environmental documents and analysis.	
2509	6	The pretense that the isolated conveyance facility was a Conservation Measure (CM1) has been removed however the lack of good faith effort at full disclosure remains. Two forty-foot (40ft) diameter tunnels 35 miles long which have the capacity depending on intakes to convey 15,000 cfs [cubic feet per second] or more of water from the Sacramento River to the export pumps with no outlets for maintaining Delta water quality certainly do not constitute a measure to protect and enhance the unique cultural, recreational and agricultural values of the Delta as an evolving place. During much of the time the capacity of the tunnels to divert water will exceed the flow available in the Sacramento River at the intake location. As clearly demonstrated the SWP and CVP have not developed sufficient supply to meet the desires of contractors or even the preconditions to their permits to operate. There is no basis to assume that regulatory restraints will not continue to be avoided through emergency actions and there is no basis to assume that water supply will be developed in sufficient quantities to meet regulatory requirements, senior obligations and contractual desires. Disregarding operation the impacts of construction and the physical facilities themselves will severely damage the Delta in violation of the statutory mandate to protect and enhance.	The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while providing ecological benefits. The proposed intakes would only be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards. Flow criteria will be applied month by month and according to water year type, in addition to real-time operational adjustments on daily time-scales. More information on the ranges of water project diversions, based on water year types and specific flow criteria, can be found in Chapter 3, FEIR/EIS. Monitoring for compliance with D-1641 requirements or any future requirements for SWP/CVP water supply operations would be conducted year-round in the future under the proposed project. Operation and construction impacts and mitigation are discussed in detail for all alternatives in compliance with NEPA and CEQA.
2509	7	Top public official actions have gone far beyond simple preference of a particular project and their actions have resulted in the lack of impartiality of the public agencies under their direction which is necessary to a good faith full disclosure in the environmental documents. Jerry Brown, Governor of the State of California has been emphatic in his advocacy of the BDCP tunnels. See Exhibit 7 which is a May 28, 2014 article wherein he is quoted as saying "I just want to get sh*t done." "Sh*t" appears to be the BDCP tunnels which are the alternative to his previously emphatically supported peripheral canal, but with no outlets to maintain Delta water quality. Those within the Governor's Department of Water Resources and Department of Fish and Wildlife (agencies responsible for good faith full disclosure in the BDCP EIR/EIS) would be fools to misread the direction from the top. They have not	Although support for the preferred CEQA/NEPA alternative may have been expressed at various times during the BDCP/California WaterFix process, as of the writing of this Final EIR/EIS the lead agencies have made no decision regarding project approval. All of the alternatives presented in this Final EIR/EIS have been considered and disclosed to meet the requirements of CEQA and NEPA. See Master Response 4 regarding range of alternatives, as well as responses to Comments 1-7, above. Although support for the preferred CEQA/NEPA alternative may have been expressed at various times during the BDCP/California WaterFix process, as of the writing of this Final EIR/EIS the lead agencies have made no decision regarding project approval. All of the alternatives presented in this Final EIR/EIS have been considered and disclosed to meet the requirements of CEQA and NEPA. See Master Response 4 regarding range of alternatives.

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		misread the direction. Secretary of Interior Ken Salazar, the head of the U.S. Bureau of Reclamation and U.S. Fish [and] Wildlife Service has also signaled his emphatic support for the BDCP Tunnels in remarks to the Commonwealth Club, San Francisco, CA, September 19, 2011, Exhibit 8. After referencing debate raging in Washington, D.C. relating to water supplies we depend on in the west. He explains: "It's a battle between pragmatism and ideology. Collaboration versus cynicism. In California's Bay-Delta, a plan to modernize and secure the State's aging and inadequate water system is always the target of potshots. Yet the bottom line is the health of the Delta is inextricably linked to the security of safe and reliable water supplies." Mr. Salazar goes on to provide: "That solution is the Bay Delta Conservation Plan. The Bay Delta Conservation Plan is the most important -- and most complex -- long-term water and habitat management plan ever undertaken. The BDCP provides a comprehensive approach that includes new habitat for endangered fish species, coordinated measures to attack toxics that are fouling Delta waters, and improvements to the state's water infrastructure. "Rather than simply pumping water from north to south through the Delta -- which places immense strain on the system and is unreliable -- a new conveyance system would reduce direct conflicts between water supply and fisheries, as the Delta Vision Blue Ribbon Task Force and many independent scientists have recommended. "This type of a comprehensive approach is long overdue. We simply must find a way to put California on a path to restore the delta and protect in-Delta interests -- while also securing a more reliable water supply for its future. These are the 'co-equal goals' required by the landmark law that the California legislature passed in 2009. That's why, for the past two and a half years, my Department has committed a vast amount of energy to advancing the BDCP." The reference to "a new conveyance system" rather than "simply pumping water from north to south through the Delta" is to the BDCP common strategy for Water and Conveyance which is the "isolated tunnel/pipeline to the south Delta". Mr. Salazar's characterization of criticism as "potshots" does not encourage those within his departments to make a good faith disclosure of adverse impacts of the project which he apparently favors. It would appear that those public officials who will control the decisions have moved well beyond support to a predetermination to move forward with the isolated conveyance in advance of completion of the EIR/EIS process.	
2509	8	Evidence of the predetermination of proceeding with the isolated tunnel/pipeline conveyance prior to completion of the EIR/EIS is the Department of Water Resources establishment of an organization within the Department called the Delta Conveyance Facility Design and Construction Enterprise [DCE] to support the design and construction of Conservation Measure 1. See Exhibit 9. In a presentation to the Metropolitan Water District of Southern California, Special Committee on the Bay Delta Mark Cowin, Director of the Department of Water Resources was quoted as saying: "So that's what I wanted to say about the DCE. The memo that I put	The proposed project is not intended to solve all of California's water issues, but is rather meant to be one piece of the puzzle to improve California water supply reliability and improve the Delta ecosystem. The project proponents recognize there are a myriad of stressors on the Delta (see Master Response 23); in addition to opportunities outside the scope of the proposed project to reduce reliance on water from the Delta (see Appendix 1C in the FEIR/EIS). Also, please see Appendix 6A for information on existing flood protection and levee improvement programs in the Delta, which would not be affected by the proposed project. The project proponents recognize the ecological importance and water supply benefits of the Delta to California and will continue supporting opportunities to improve Delta levee infrastructure and ecological

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		out to all staff as Randall indicated, really is just our first steps as an organization to prepare ourselves for implementation of this project so we're taking our existing resources and starting to move them into an organization that can engage both with the DCE and ultimately with the implementation office for BDCP as well." (Exhibit 9-1) The candid admission by Jerry Meral, then Deputy Secretary of Resources who was quoted to say: "BDCP is not about, and never has been about saving the Delta. The Delta cannot be saved." is further evidence that there has been a predetermination as to the construction of the isolated conveyance facility. See Exhibit 10. The isolated conveyance is the only measure for which the BDCP EIR/EIS provides project level review. The lack of inclusion of Delta levee improvements as part of the project to facilitate export operation when the Sacramento River intakes cannot be safely operated lends more weight to the evidence that going forward with the isolated conveyance has been predetermined. The State administration determination is contrary to State law which requires that the unique cultural, recreational, natural resource and agricultural values of the Delta be protected and enhanced and that water shall not be diverted from the Delta for use elsewhere unless adequate supplies for the Delta are first provided.	conditions. For more information regarding purpose and need please see Master Response 3.For more information regarding development of alternatives, please see Master Response 4.
2509	9	In April of 2015, before completion of environmental review, the Design and Construction Enterprise (DCE) developed a CM1 Property Acquisition Management Plan focused only on Alternative 4 which includes the Sacramento River intakes and the isolated tunnels along the chosen route for Alternative 4A. This planning-effort focus on only one alternative and one route is yet another commitment of resources to the single preferred alternative thus inhibiting objective review of other alternatives. See Exhibit 10-1. On August 25, 2015 the DWR and USBR submitted to the SWRCB a petition for change in their specific water permits to allow the three new intakes on the Sacramento River for Alternative 4A. This commitment of resources and reflection of intent to move forward with Alternative 4A and only 4A is yet another confirmation of the predetermination for new intakes on the Sacramento River and the isolated conveyance tunnels. See Exhibit 10-2.	The CM1 Property Acquisition Management Plan, like many other studies and assessments, was conducted by DWR and the Design and Construction Enterprise to better understand the costs and logistical issues with the preferred alternative. Committing resources to study and investigate the feasibility of an alternative does not mean that the alternative is the only one that can be selected. In fact, DWR and Reclamation have had a history of performing major modifications and optimizing the preferred alternative several times during the development of BDCP, then Alternative 4A. See Master Response 4 for a discussion of why the proposed tunnel route was the only alternative optimized in this fashion. Similarly, the petition that DWR and Reclamation submitted to the SWRCB does not preclude the selection of a different alternative, but presents a boundary analysis covering various alternatives.
2509	10	On August 27, 2015 California Natural Resources Secretary John Laird gave an update to a committee of the San Diego Water Authority explaining the split of the tunnel project into two projects. He explained, "By doing two 30-mile tunnels and by doing habitat restoration, it lowers the amount of approval that needs to be done, and you can move ahead with the habitat. . . . I should just say that the Governor is very committed to doing this. He wants to get it done. One of the interesting things in working for him is that he is fearless. He says what he really thinks; it doesn't matter how unpopular it is, if he thinks it's in the long-term interest, he is determined to spend whatever capital it takes to get it done, and this is on that list for him." The predetermination as to the tunnels is again confirmed. See Exhibit 10-3. On September 21, 2015 the USACE [U.S. Army Corps of Engineers] gave notice that the DWR applied for a permit to place fill material in approximately 775.02 acres of waters of the United States to construct and operate a new water conveyance facility consisting of three intakes along the Sacramento River and dual tunnels conveying up to 9,000 cubic feet per second of water to the existing Clifton Court Fore bay. See Exhibit 10-4. This application is specific to the 4A tunnels and three Sacramento intakes adding to the evidence of predetermination.	Although support for the preferred CEQA/NEPA alternative may have been expressed at various times during the BDCP/California WaterFix process, as of the writing of this Final EIR/EIS the lead agencies have made no decision regarding project approval. All of the alternatives presented in this Final EIR/EIS have been considered and disclosed to meet the requirements of CEQA and NEPA. Please refer to Master Response 45, regarding permitting processes and the appropriateness of this approach.

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		The actions of Federal officials and agencies reflect an intentional violation and circumvention of 40 CFR section 1506.1(a) which precludes actions which would "limit the choice of reasonable alternatives" until an agency issues a record of decision as provided in section 1505.2. Such actions clearly run contrary to a good faith effort to rigorously explore and objectively evaluate all reasonable alternatives as required by 40 CFR section 1502.14. The actions of State officials and departments clearly show that the project with three intakes on the Sacramento Rivers and two tunnels connecting to Clifton Court has already been determined to be the selected project regardless of the fact that environmental review has not been completed.	
2509	11	NEPA policy and procedural requirements to assure objectivity in the preparation of the EIS have been and are being circumvented.	Please refer to the response to Comment 7, as well Master Response 45 regarding permitting processes and the appropriateness of this approach and Master Response 4 regarding range of alternatives.
2509	12	The BDCP Draft EIR/EIS Purpose Statement and the revision in the Water Fix are a confusing mix of State Water Project (SWP), federal Central Valley Project (CVP), State Water Contractor and federal Water Contractor purposes and needs. The broader purposes as required by law are not included.	As stated in Chapter 2, Purpose and Need, of the EIR/EIS, DWR's fundamental purpose in planning the proposed project is to make physical and operational improvements to the SWP/CVP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality. See Master Response 3 for additional information regarding the project's purpose and need.
2509	13	The SWP and State Water Contractors obviously want to construct the isolated conveyance facility and operate the SWP to maximize the export of water from the Delta. The CVP (U.S. Bureau of Reclamation) although clearly in favor of construction of the isolated conveyance has not forthrightly sought authority to join in construction, but obviously plans to convey CVP water through such facility and seeks to protect the "ability of the SWP and CVP to deliver up to full contract amounts, . . ." The SWP contractors and CVP contractors who are to receive the water exported from the Delta obviously are isolated conveyance and full delivery proponents.	The lead agencies' Purpose and Need for the project is clearly stated in Chapter 2, Purpose and Need, of the EIR/EIS and is discussed further in Master Response 3.
2509	14	The roles of regulating agencies and applicants, lead agencies and cooperating agencies has been mixed in a manner which circumvents the procedural mechanisms to assure NEPA required objectivity. The SWP and SWP contractors seeking take permits from the U.S. Fish & Wildlife Services (USFWS) and Natiqnal Marine Fisheries Service should be viewed as applicants and the Services as co-lead agencies. In such case, the EIS should have been prepared directly by the Services or by a contractor selected by them or where appropriate under 40 CFR section 1501.6(b), a cooperating agency which has a similar interest. 40 CFR section 1506.5(c) in part provides: "It is the intent of these regulations that the contractor be chosen solely by the lead agency, or by the lead agency in cooperation with cooperating agencies, or where appropriate by a cooperating agency to avoid any conflict of interest." (Emphasis added.) Allowing DWR, the USBR and their respective contractors to run the show is not appropriate. Although 40 CFR section 1506.2 directs cooperation to the fullest extent possible to reduce duplication between NEPA and state and local requirements, it does not suggest that compliance with requirements to avoid conflict of interest and assure objectivity can be	Under CEQA a lead agency is the public agency that has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment (Public Resource Code Section 21067). DWR has primary responsibility over changes to the SWP and its operations. Under NEPA a lead agency is the federal agency with primary responsibility for complying with NEPA on a given proposed action (40 CFR 1508.16). In this case Reclamation has the primary responsibility over actions that could affect CVP operations in the Delta. Following the move away from the BDCP as the preferred alternative, USFWS and NMFS became cooperating agencies, primarily responsible for compliance with the ESA. Use of a common consultant to support preparation of environmental documents by both lead and cooperating agencies is a typical industry practice that helps ensure efficiency and facilitates sharing of information between involved agencies. Further, the comment does not provide any support for the conclusion that any conflict of interest exists. Regardless, any perceived conflict of interest by the consultant in providing support services to USFWS and NMFS would not affect the adequacy of the lead agencies' CEQA and NEPA compliance.

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		avoided. Joint selection of common consultants in compliance with NEPA requirements and subsequent sole direction of the common consultants by USFWS and NMFS as to NEPA compliance would avoid duplication and could have helped avoid the conflict of interest deterioration of objectivity. Such has not been the case. The USBR is not a regulatory or permitting agency for BDCP in the same sense as the USFWS and NMFS. It has its own responsibilities for compliance with federal ESA. It's consultations with USFWS and NMFS require that it comply with NEPA, but its role in protecting endangered species is conflicted with its role in serving its water contractors and in coordinating the CVP operations with those of the SWP. The USBR is not an adequate representative for the interests and NEPA responsibilities of the USFWS and NMFS and should not be a co-lead and particularly the sole lead.. Exhibit 11 [BDCP1561ATT11] is a copy of the First Amendment to the Memorandum of Agreement Regarding Collaboration on the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program in Connection with the Development of the Bay Delta Conservation Plan dated August 31, 2011. This copy contains signatures by the DWR and USBR. Whether the State and Federal Contractors signed is not known. This First Amendment can be contrasted to another First Amendment (which may be the Second Amendment) dated December 15, 2011 and is Exhibit 6. The USFWS and NMFS are not parties to either First Amendment. Both First Amendments provide essentially the same language as to contracting, directing and communicating with the consultants regarding the BDCP related environmental documents. ILE. of Exhibit 6 [BDCP1561ATT6] provides: "E. DWR is taking the lead role in preparing and, after consultation with the Parties, shall direct the consultants regarding the content of the BDCP, including those elements of the BDCP intended to be incorporated in the EIS/EIR. DWR has also contracted with the consultants preparing the EIS/EIR and shall continue to administer the contract. DWR shall solicit, in a timely manner, from the Department of Fish and Game ('DFG'), the Public Water Agencies, and the NEPA Co-lead Agencies, comments on the draft work products in support of the completion of tasks, pursuant to the schedules in Exhibit 1 and lA. As set forth in Paragraph B above, Reclamation shall be responsible for coordinating with the NEPA Co-lead Agencies and coordinating with DWR on the NEPA Co- lead Agencies' comments that DWR shall submit to the Consultants in accordance with the schedules in Exhibit 1 and lA. In the event agency comments are not received consistent with the schedules in Exhibit 1 and lA, DWR may proceed with preparation of the BDCP and DWR, and Reclamation may proceed with the preparation of the EIS/EIR. DWR shall direct the Program Manager on preparation of the BDCP and EIS/EIR as necessary to maintain the schedule or consider necessary revisions as described in subsection II.C. The DWR Director shall concurrently advise the Parties of the direction provided to the Program Manager. Nothing in this section or elsewhere in this First Amended MOA modifies the Federal responsibilities for the content of the draft and final	

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		EIS and preparation of the ROD." (Emphasis added.) II.F. of Exhibit 6 and Exhibit 11 in pertinent part provides: "F. DWR has retained a consultant with extensive pro ject management experience to be the BDCP and DHCCP Program Manager. The Program Manager shall report to and be directed by the Director of DWR. The Director of DWR shall implement the responsibilities of DWR as set forth in Subsection II.E. above. The Director of DWR may fulfill this responsibility through the Program Manager, who is delegated to carry out the day-to-day management activities of the BDCP and to closely coordinate with Reclamation regarding preparation of the EIS/EIR. " (Emphasis added.) II.Q. of Exhibit 6 (12-15-11) provides: "Q. The Parties may retain consulting services as necessary to complete the BDCP and DHCCP Planning Phase, including the BDCP and EIS/EIR. No consultants will be retained for BDCP work unless they are approved by DWR. Before retaining consultants for EIS/EIR work DWR shall, in accordance with NEPA, its implementing regulations and the Lead Agency Agreement, consult with the NEPA Co- Lead Agencies. Consistent with Section II.F, above, the Director of DWR shall manage the retained consultants to carry out the BDCP and EIS/EIR." (Emphasis added.) II.Q. of Exhibit 11 (8-31-11) provides: "Q. The Parties may retain consulting services as necessary to complete the BDCP-DHCCP Planning Phase, including the BDCP and EIS/EIR. Consistent with Section II.F, above, the Director of DWR shall manage the retained consultants to carry out the BDCP and EIS/EIR." (Emphasis added.) III.I. of Exhibit 6 and Exhibit 11 provide: "I. In the event DWR designates SFCWA as a consultant contract administrator, DWR shall continue collecting funds from the Public Water Agencies, including but not limited to those member agencies identified in Exhibit 2, pursuant to the BDCP-DHCCP Planning Phase funding agreements, and DWR shall distribute those funds to SFCWA to fund the consultants that are contracting directly with SFCWA for the completion of the BDCP- DHCCP Planning Phase." (Emphasis added.) The USFWS and NMFS, the agencies with the most direct responsibility for protection of endangered species and the parties expected to grant the essential permits have been relegated to a back seat role. They don't hire or direct the consultants; their submission of comments must be through the USBR and thence through DWR to the consultants. If their comments are untimely DWR and Reclamation make the call. USFWS and NMFS cannot even hire consultants unless they are approved by DWR and DWR can even delegate administration of the consultant contracts to the water contractors. The manipulation of the lead, co-lead and cooperating agencies and the delegation of responsibilities by the State and federal agencies has left the most conflicted parties in	

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		charge of the NEPA environmental process. Although the ultimate approval is left with the respective agencies, the thousands of pages of text and studies is virtually impossible to adequately review The 132 page Executive Summary can be contrasted to the 15 page normal summary referenced in 40 CFR section 1502.12 and the thousands of pages in the DEIS/EIR can be contrasted to the 150 to 300 pages referenced in 40 CFR section 1502.7. The impartiality and avoidance of conflicts whether financial or otherwise, of the consultants is critical to the objective analysis required by NEPA. Those who contract with the consultants and most important those who direct the consultants will have the greatest impact on objectivity. As related to BDCP the DWR and in tum the USBR are essentially the agents of their respective contractors and should be viewed as applicants for the purpose of NEPA compliance. 40 CFR section 1506.5(c) specifies that a consulting firm involved in preparing an EIS must execute a disclosure statement setting forth any "financial or other interest in the outcome of the project." Whether this was done and by whom is of interest however, even with such disclosure, direction of the consultants will greatly dictate the bounds of objectivity. Objectivity to assure the need to "rigorously explore and objectively evaluate all reasonable alternatives" is made more critical by the revolving door of employees between federal and state agencies and export water contractors. For NEPA purposes, USFWS and NMFS should now engage independent consultants which they direct to review, revise and supplement the already prepared BDCP documents and issue their own draft EIS for public comment and final action. The cost for such effort should be paid in advance by the contractors.	
2509	15	For CEQA purposes the state Department of Fish and Wildlife, although realistically not able to exercise any position independent of DWR, would have been the more appropriate State agency to direct the consultants in preparation of the EIR. At this juncture the Independent Science Board or some other independent body should be authorized and funded to review, revise and supplement the already prepared BDCP documents and issue a new CEQA draft for public comment and final action. The cost for such effort should be paid in advance by the contractors.	A lead agency is the public agency which has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment (Public Resource Code Section 21067). The preferred CEQA and NEPA project (Alternative 4A) and other alternatives presented in this Final EIR/EIS would require modification of the State Water Project (SWP) which is operated by DWR. Therefore, DWR, not California Department of Fish and Wildlife (DFW), has the principal responsibility for approving and implementing the project as is the proper lead agency for CEQA purposes. DFW is a CEQA Trustee Agency, as the agency charged with enforcing the California Endangered Species Act and having regulatory jurisdiction over affected wildlife. As such, DFW exercises independent discretion both in its contribution to and review of the CEQA analysis, as well as issuance of any DFW permits or permissions needed by DWR and other state and local agencies to construct the project.
2510	1	The modified project objectives and purpose and need in the RDEIR/SDEIS unlawfully distort and constrain the analysis in favor of exports and against the legal mandates requiring that exports be limited to water which is truly surplus to the present and future needs of the delta and other areas of origin including fish and wildlife needs. The promises and law restricting exports from the Delta are reflected in the representations and promises made at the inception of both the CVP and SWP.	Importantly, all water exported by the SWP and CVP is the subject of the existing water rights of those two agencies. Exports do not come at the expense of other water rights holders. The proposed project and its alternatives analyzed in the EIR/EIS only include the use of water from existing SWP and CVP water rights or voluntary water transfers from other water rights holders. The proposed project and its alternatives do not reduce the protections for other water right holders. See Master Response 3 (Purpose and Need), Master Response 34 (Beneficial Use of Water), Master Response 26 (Area of Origin), and Master Response 35 (MWD Water Supply).
2510	2	A summary of the promises made on behalf of the United States to those in the areas of origin is contained in the 84th Congress, 2D Session House Document No. 416, Part One Authorizing Documents 1956 at Pages 797-799 as follows:	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. See Master Response 26 regarding area of origin protections.

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		"My Dear Mr. Engle: In response to your request to Mr. Carr, we have assembled excerpts from various statements by Bureau and Department officials relating to the subject of diversion of water from the Sacramento Valley to the San Joaquin Valley through the operation of the Central Valley Project. A factual review of available water supplies over a period of more than 40 years of record and the estimates of future water requirements made by State and Federal agencies makes it clear that there is no reason for concern about the problem at this time.	
2510	3	On February 20, 1942, in announcing the capacity for the Delta-Mendota Canal, Commissioner John C. Page said, as a part of his Washington D.C., press release: "The capacity of 4,600 cubic feet per second was approved, with the understanding that the quantity in excess of basic requirements mainly for replacement at Mendota Pool, will not be used to serve new lands in the San Joaquin Valley if the water is necessary for development in the Sacramento Valley below Shasta Dam and in the counties of origin of such waters." · On July 18, 1944, Regional Director Charles E. Carey wrote a letter to Mr. Harry Barnes, · chairman of a committee of the Irrigation Districts Association of California. In that letter, speaking on the Bureau's recognition and respect for State laws, he said: "They [Bureau officials] are proud of the historic fact that the reclamation program includes as one of its basic tenets that the irrigation development in the West by the Federal Government under the Federal reclamation laws is carried forward in conformity with State water laws." On February 17, 1945, a more direct answer was made to the question of diversion of water in a letter by Acting Regional Director R. C. Calland, of the Bureau, to the Joint Committee on Rivers and Flood Control of the California State Legislature. The committee had asked the question, "What is your policy in connection with the amount of water that can be diverted from one watershed to another in proposed diversions?" In stating the Bureau's policy, Mr. Calland quoted section 11460 of the State water code, which is sometimes referred to as the county of origin act, and then he said: "As viewed by the Bureau, it is the intent of the statute that no water shall be diverted from any watershed which is or will be needed for beneficial uses within that watershed. The Bureau of Reclamation, in its studies for water resources development in the Central Valley, consistently has given full recognition to the policy expressed in this statute by the legislature and the people. The Bureau has attempted to estimate in these studies, and will continue to do so in future studies, what the present and future needs of each watershed will be. The Bureau will not divert from any watershed any water which is needed to satisfy the existing or potential needs within that watershed. For example, no water will be diverted which will be needed for the full development of all of the irrigable lands within the watershed, nor would there be water needed for municipal	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while providing ecosystem benefits. See also Master Response 26 regarding area of origin protections.

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		and industrial purposes or future maintenance of fish and wildlife resources." On February 12, 1948, Acting Commissioner Wesley R. Nelson sent a letter to Representative Clarence F. Lea, in which he said: "You asked whether section 10505 of the California Water Code, also sometimes referred to as the county of origin law, would be applicable to the Department of the Interior, Bureau of Reclamation. The answer to this question is: No, except insofar as the Bureau of Reclamation has taken or may take assignments of applications which have been filed for the appropriation of water under the California Statutes of 1927, chapter 286, in which assignments reservations have been made in favor of the county of origin. The policy of the Department of the Interior, Bureau of Reclamation, is evidenced in its proposed report on a Comprehensive Plan for Water Resources Development- Central Valley Basin, Calif., wherein the Department of the Interior takes the position that "In addition to respecting all existing water rights, the Bureau has complied with California's 'county of origin' legislation, which requires that water shall be reserved for the presently unirrigated lands of the areas in which the water originates, to the end that only surplus water will be exported elsewhere." On March 1, 1948, Regional Director Richard L. Boke wrote to Mr. A. L. Burkholder, secretary of the Live Oak Subordinate Grange No. 494, Live Oak, Calif., on the same subject, and said: "I can agree fully with the statement in your letter that it would be grossly uni ust to 'take water from the watersheds of one region to supply another region until all present and all possible future needs of the first region have been fully determined and completely and adequately provided for.' That is established Bureau of Reclamation policy and, I believe, it is consistent with the water laws of the State of California under which we must operate." On May 17, 1948, Assistant Secretary of the Interior William E. Warne wrote a letter to Representative Lea on the same subject, in which he said: "The excess water made available by Shasta Reservoir would go first to such Sacramento Valley lands as now have no rights to water." Assistant Secretary Warne goes on to say, in the same letter: "As you know, the Sacramento Valley water rights are protected by: (1) Reclamation law which recognizes State water law and rights thereunder; (2) the State's counties of origin act, which is recognized by the Bureau in principle; and (3) the fact that Bureau filings on water are subject to State approval. I can assure you that the Bureau will determine the amounts of water required in the Sacramento Valley drainage basin to the best of its ability so that only surplus waters would be exported to the San Joaquin. We are proceeding toward a determination and settlement of Sacramento Valley waters which will fully protect the rights of present users; we are determining the water needs of the Sacramento Valley; and it will be	

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		the Bureau's policy to export from that valley only such waters as are in excess of its needs." On October 12, 1948, Secretary of the Interior Krug substantiated former statements of policy in a speech given at Oroville, Calif. Secretary Krug said, with respect to diversion of water: "Let me state, clearly and finally, the Interior Department is fully and completely committed to the policy that no water which is needed in the Sacramento Valley will be sent out of it." He added: "There is no intent on the part of the Bureau of Reclamation ever to divert from the Sacramento Valley a single acre-foot of water which might be used in the valley now or later." The California Water Resources Development Bond Act provides in Water Code Section 12931 that the Sacramento-San Joaquin Delta shall be deemed to be within the watershed of the Sacramento River. Exhibit 16 [BDCP1561ATT16] is a copy of the 1960 ballot argument in favor of the California Water Resources Development Bond Act which spawned the State Water Project (SWP). Of particular note are the following representations: "No area will be deprived of water to meet the needs of another nor will any area be asked to pay for water delivered to another." "Under this Act the water rights of Northern California will remain securely protected." "A much needed drainage system and water supply will be provided in the San Joaquin Valley." In ES.1.2.2 of the RDEIR/SDEIS it is stated that State policy regarding the Delta is summarized in the Sacramento-San Joaquin Delta Reform Act of 2009. Reference is made only to Water Code Sections 85001, subd. (c) and 85002 while failing to recognize sections 8503 l (a), 85054, 85021 and others. Water Code section 8503 l (a) provides : "(a) This division does not diminish, impair, or otherwise affect in any manner whatsoever any area of origin, watershed of origin, county of origin, or any other water rights protections, including, but not limited to, rights to water appropriated prior to December 19, 1914, provided under the law. This division does not limit or otherwise affect the application of Article 1.7 (commencing with Section 1215) of Chapter 1 of Part 2 of Division 2, Sections 10505, 10505.5, 11128, 11460, 11461, 11462, and 11463, and Sections 12200 to 12220, inclusive." Water Code Sections 11460 et seq. and 12200 et seq. are particularly specific in defining the	

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		limitation on the export of water from the Delta by the SWP and CVP. Water Code Section 11460 et seq. were added by Statutes 1943, c. 370, p. 1896 around the time of commencement of the CVP. Water Code Section 12200 et seq. was added by Statutes 1959, c. 1766, p. 1766 around the time of commencement of the State Water Project. The limitation of the projects to the export of only surplus water and the obligation of the projects to provide salinity control and assure an adequate water supply sufficient to maintain and expand agriculture, industry, urban, and recreational development in the Delta is clear.	
2510	4	Water Code 12200 through 12205 are particularly specific as to the requirements to provide salinity control for the Delta and provide an adequate water supply in the Delta sufficient to maintain and expand agriculture, industry, urban and recreational development.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. For more information on the project's effects on water quality, please see Master Response 14. See also Master Response 3 regarding project purpose and need.
2510	5	The December 1960 DWR Bulletin 76 (Exhibit 14) which includes a contemporaneous interpretation by DWR of Water code Section 12200 through 12205 provides at page 12: "In 1959 the State Legislature directed that water shall not be diverted from the Delta for use elsewhere unless adequate supplies for the Delta are first provided. (Emphasis added.) Similarly the DWR confirmed its interpretation of law in the contract between the State of California Department of Water Resources and the North Delta Water Agency For the Assurance of a Dependable Water Supply of Suitable Quality dated January 28, 1981, which provides: "(d) The construction and operation of the FCVP and SWP at times have changed and will further change the regimen of rivers tributary to the Sacramento-San Joaquin Delta (Delta) and the regimen of the Delta channels from unregulated flow to regulated flow. This regulation at times improves the quality of water in the Delta and at times diminishes the quality from that which would exist in the absence of the FCVP and SWP. The regulation at times also alters the elevation of water in some Delta channels." "(f) The general welfare, as well as the rights and requirements of the water users in the Delta, require that there be maintained in the Delta an adequate supply of good quality water for agricultural, municipal and industrial uses." "(g) The law of the State of California requires protection of the areas within which water originates and the watersheds in which water is developed. The Delta is such an area and within such a watershed. Part 4.5 of Division 6 of the California Water Code affords a first priority to provision of salinity control and maintenance of an adequate water supply in the Delta for reasonable and beneficial uses of water and relegates to lesser priority all exports of water from the Delta to other areas for any purpose." (Emphasiss added.) (See Exhibit 17 BDCP1561ATT17.) United States vs. State Water Resources Control Board 182 Cal.App.3d82 (1986) at page 139 provides:	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. See Master Response 3 regarding project purpose and need and Master Response 26 regarding area of origin protections.

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		"In 1959, when the SWP was authorized, the Legislature enacted the Delta Protection Act. (§§ 12200-12220.) The Legislature recognized the unique water problems in the Delta, particularly 'salinity intrusion,' which mandates the need for such special legislation 'for the protection, conservation, development, control and use of the waters in the Delta for the public good.' (§ 12200.) The act prohibits pro ject exports from the Delta of water necessary to provide water to which the Delta users are 'entitled' and water which is needed for salinity control and an adeq uate supply for Delta users. (§§ 12202, 12203, 12204.) SWRCB D-1485 at page 9 provides: "The Delta Protection Act accords first pnonty to satisfaction of vested rights and public interest needs for water in the Delta and relegates to lesser priority all exports of water from the Delta to other areas for any purpose." As related to the Peripheral Canal or Tunnels or any other isolated conveyance facility, the requirements of WC 12205 are particularly relevant. "It is the policy of the State that the operation and management of releases from storage into the Sacramento- Joaquin Delta of water for use outside the area in which such water originates shall be integrated to the maximum extent possible to permit fulfillment of the objectives of this part." The objectives include salinity control and an adequate water supply. Conveyance facilities which transport stored water to the export pumps with no outlets or releases to provide salinity control and an adequate water supply in the Delta would not comply.	
2510	6	The export projects must fully mitigate their respective impacts and meet the affirmative obligations to the Delta and other areas of origin including those related to flow. Failure to so do results in a shift of the cost of the project to someone else. The State Water Resources Development Bond Act was intended to preclude such a shift in costs. See also Goodman v. Riverside (1993) 140 Cal.App.3d 900 at 906 for the requirement that the costs of the entire project be paid by the contractors. Water Code Section 11912 requires that the costs necessary for the preservation of fish and wildlife be charged to the contractors. The term "preservation" appears to be broader than mitigation and appears to create an affirmative obligation beyond mitigation. Title 34 of Public Law 102-575 referred to as the Central Valley Project Improvement Act in Section 3406(b)(1) authorizes and directs the Secretary of Interior to enact and implement a program which makes all reasonable efforts to ensure by the year 2002 natural production of anadromous fish (including salmon, steelhead, striped bass, sturgeon and American shad) will be sustainable on a long term basis at levels not less than twice the average levels attained during the period of 1967-1991.	Please refer to Master Response 5 regarding project implementation and costs. See Master Response 22 regarding mitigation. The proposed project is one component, among many, of the California Water Plan. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: http://www.waterplan.water.ca.gov/. The proposed project is not wholly responsible for meeting the CVPIA goals, and based on the analysis, does not preclude Reclamation from implementation of actions to address CVPIA goals.
2510	7	The Delta Reform Act of 2009 includes provisions intended to provide additional protection for the Delta. Such provisions include Water Code §85054 which provides: "§85054. Coequal goals	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. For information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31.

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		'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."	
2510	8	Water Code §85021 which provides: "§85021. Reduction ofreliance on Delta for future water supply needs The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self- reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts."	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. See Final EIR/EIS Chapter 5, Water Supply.
2510	9	The Delta and other areas of origin both upstream and downstream are part of California and also need a more reliable water supply. The modified purposes are clearly directed only at the ability of the SWP and CVP to export water from the Delta. Restoration and protection of Delta water quality and flows including flushing flows are part of a more reliable water supply for California. Non-degradation of water quality and the statutory obligations to provide enhancement of water quality and an adequate supply are also absent from the purposes. The embedded isolated conveyance will clearly render water supply less reliable in all areas of the Delta downstream of the Sacramento River intakes and those areas along the current routes of Sacramento River flow to the export pumps. The common pool for the interior Delta will be eliminated along with the common interest in protecting the water quality. The isolated conveyance has no outlets and requirements to protect water quality in dry periods are always circumvented. ror areas throughout the watershed, including those along the tributaries upstream of the Delta, curtailment oflocal water use, and water transfers to increase utilization of the highly expensive tunnels combined with the need for fish flows and high water consumption habitat to mitigate for the construction and operation of the tunnels will greatly add to unreliability.	Final EIR/EIS Chapter 2, Project Objectives and Purpose and Need, discusses the need to provide a reliable water supply to the project proponents represented by the CEQA and NEPA lead agencies (e.g., DWR who is responsible for water contract deliveries to the SWP water users, Reclamation who is responsible for water contract deliveries to CVP water users, and DWR and Reclamation who are responsible to deliver water to water rights holders that hold senior water rights to the DWR and Reclamation water rights and who would have been affected by the SWP and CVP facilities without settlement or exchange agreements). The project objectives and purpose and need discussions address the complicated Delta water quality issues and the need to anticipate, prepare, and adapt to changes in Delta water quality in a manner that would address the needs to provide adequate and reliable water supplies. Chapter 2 addresses the need to meet regulatory and statutory obligations, including water quality requirements, while restoring and protecting SWP and CVP water supplies "with the requirements of the State and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements."
2510	10	The Water Fix ignores the need to reduce reliance on exports of water from the Delta. The hydrology of the Delta watershed is inadequate to support even the past level of exports. Development within the watersheds of origin and the need to recapture water from SWP and CVP exports will increase. There is evidence that more water will be needed to mitigate for the SWP and CVP damage to fish including meeting the Central Valley Project Improvement Act anadromous fish restoration requirements of 2 times the average natural production for the years 1967 through 1991.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the Final EIR/EIS), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Resources Control Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. The No Action Alternative and the action alternatives include well-defined future projects that will increase the amount of water diverted to senior water rights holders and reduce the amount of water available to SWP and/or CVP. Other programs that are not as well-defined are considered in the Cumulative Effects

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			analysis, including full implementation of the Anadromous Fish Restoration Program, which uses a combination of habitat restoration and increased flows in the streams located upstream of the Delta to meet the natural production goals outlined in section 3406 (b)(1) of the Central Valley Project Improvement Act. As these programs are developed, it is recognized that the available water supplies for SWP and CVP water contractors could decline under both the No Action Alternative and the action alternatives. However, it is anticipated that the incremental difference between the No Action Alternative and the action alternatives would be similar with or without these future undefined projects.
2510	11	Climate change is also expected to adversely affect water supply.	The Draft EIR/EIS included an analysis of the No Action Alternative and the action alternatives assuming climate change and sea level rise at the Year 2060. The Final EIR/EIS includes an analysis of the No Action Alternative of the proposed project, Alternative 4A, and Alternatives 2D and 5A assuming climate change and sea level rise somewhere around the Years 2025 to 2030. The analytical results indicate that SWP and CVP water deliveries would be reduced in the future due to climate change and sea level rise.
2510	12	The increasing threat of terrorism, the continuing threat of natural calamities, including earthquakes and the growing need for electricity all gravitate towards less reliance on exports from the Delta and instead concentration on developing local self- sufficiency.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. No response is required. Emergency conditions are not normally evaluated in an EIS/EIR, as the details of those conditions are unknown and represent a non-typical environmental condition on which to base EIR/EIS analyses. See FEIR/EIS Appendix 6A, Section 6A.4 regarding emergency response. See also FEIR/EIS Chapter 2, Project Purpose and Need.
2510	13	The deficit due to the failure to develop North Coast watersheds will not be overcome by efforts at self-sufficiency, however, increased efforts in urban communities can increase the amount of water available for agriculture and the environment.	All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights, including water rights on the North Coast watershed as defined in previous State Water Plan studies, nor reduction in total water rights issued to DWR and Reclamation. The proposed project is one component, among many, of the California Water Plan. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: http://www.waterplan.water.ca.gov/.
2510	14	The hydrology predating the construction of the CVP and SWP reflected that no surplus water would be available for export from the Sacramento-San Joaquin Watershed during a reoccurrence of the 1929-1934 drought. Exhibit 12 is a copy of the hydrographs from page 116 of the Weber Foundation Studies titled "An Approach To A California Public Works Plan" submitted to the California Legislature on January 28, 1960. The highlights and margin notes are mine. The 1928/29-1933/34 six year drought period reflected on Exhibit 12 shows the average yearly runoff is 17.631 million acre feet with local requirements of 25.690 million acre feet. There is a shortage during the drought period within the Delta Watershed of 8.049 million acre feet per year without any exports. It is questionable whether the groundwater basins can be successfully mined to meet the shortage within the watershed let alone the export demands. A comparable review of the hydrograph for the North Coast area reflects that surplus water could have been developed without infringing on local requirements.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. See Master Response 47 regarding drought conditions.
2510	15	The limited hydrology was clearly recognized in the planning for the SWP which was to develop projects on the rivers in the North Coast watersheds sufficient to import to the Delta about 5,000,000 acre feet of water seasonally for transfer to areas of deficiency. (See Exhibit 14 [BDCP1561ATT14] December 1960 Bulletin 76 page 13). Such areas of deficiency were expected to be both north and south of the Delta pumps. The	See the response to Comment 2510-13. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights, including water rights on the North Coast watershed as defined in previous

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		projects in the North Coast watersheds were never constructed and the projects are woefully short of water.	State Water Plan studies, nor reduction in total water rights issued to DWR and Reclamation.
2510	16	In addition to the lack of precipitation in the Delta watershed to meet local and export needs are the environmental needs, water is needed for mitigation of project impacts and the affirmative obligations for salinity control and fish restoration.	The CALSIM II model assumptions prioritize water releases from the SWP and CVP reservoirs to meet Delta outflow and water quality criteria above other water uses. After meeting these requirements, water demands for fisheries and senior water rights are met before any deliveries to SWP and CVP water contractors are made.
2510	17	The original planning for the SWP and CVP appears to have underestimated the needs to protect fish both as to flow requirements and carryover storage required for temperature control. In 2009 after only two (2) dry years, the SWP and CVP violated the February outflow requirements claiming that meeting the outflow requirements would reduce storage below the point necessary to meet cold water requirements for salmon later in the year. Although the project operators lied and the real reason for the violation was the ongoing pumping of the unregulated flow to help fill San Luis Reservoir, the incident clearly shows the inability of the projects to provide surplus water for export in the 4th, 5th and 6th years of drought. In May of 2013 the SWP and CVP again claimed a need to preserve cold water in storage for fish. They requested and were allowed by the SWRCB to reduce outflow so as to exceed the western and interior Delta agricultural water quality objectives to save such cold water in storage. They did not suggest and did not reduce export pumping which would have had the same effect as reducing outflow. . In 2014 the 3rd year of drought, the SWRCB issued curtailment notices to post 1914 water right holders in the areas of origin and reduced exports due to the lack of water. Currently in what appears to be the 4th year of drought the SWRCB curtailed post 1914 and some pre 1914 water rights and reduced exports due to lack of water.	The EIR/EIS evaluates long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The evaluation is a comparative analysis to determine the incremental differences between conditions under Alternatives 1 through 9, the action alternatives, and conditions under Existing Conditions and the No Action Alternative. The analyses were not conducted to identify specific values or to respond to short-term emergency situations, such as the ongoing drought. Separate engineering and environmental studies have been and will continue to be prepared when water quality criteria and other regulations are modified in emergencies. See Master Response 47 regarding drought conditions.
2510	18	Six year droughts can be expected and even longer droughts are possible. The historic occurrence of multi-year droughts was examined in a DWR study of tree rings. Exhibit 13 [BDCP1561ATT13] is Table 3 from such study. The State Water Project DeliveTy Reliability Report 2013 shows a long-term (10 year period) average Table A delivery as 2,266,000 acre feet per year; a long-term average (1921-2003) as 2,400,000 acre feet per year; a single dry year (1977) as 453,000 acre feet and a 6-year drought (1987-1992) as 1,055,000 acre feet per year. These figures can be contrasted to the Maximum Possible SWP Table A Delivery of 4, 172,000 acre feet per year. See Exhibit 15 [BDCP1501:ATT15] excerpts from SWP Delivery Reliability Report 2013. The failure of the SWP and CVP to carry out the plan for development of water projects to yield sufficient surplus water to meet the needs and obligations within the Delta and other areas of origin. and the expectations of the export contractors is at the root of the crisis in the Delta.	See the response to Comment 2510-13. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. See Master Response 26 regarding area of origin protections.
2510	19	Under CEQA the Purpose and Need cannot be artificially narrowed to limit objective consideration of reasonable alternatives. The lead agencies have done just that. They rely on the proposition that "a reasonable definition of underlying purpose and need" could be used to avoid the objective consideration and evaluation of alternatives that cannot achieve	The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. In fact, as a direct result of the extensive public comments and agency input, the water facility and conveyance options proposed as part of the project

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		that basic goal. Their definition of purpose and need is not reasonable.	changed significantly during the planning process in ways that reduce impacts in the Delta communities. Additional unique Alternatives that were proposed during review of Administrative Drafts of the BDCP and EIR/EIS were also considered and described, See Appendix 3A of the EIR/EIS and Section 4 of the RDEIR/SDEIS. Please refer to Master Response 4 (Alternatives) and Master Response 31 (Delta Reform Act) for additional details on the selection of alternatives and compliance with CEQA and NEPA and the Delta Reform Act. Also, please refer to Master Response 3 for information on the project purpose and need.
2510	20	The requirements for NEPA are different. The DEIS/EIR must meet the requirements of 40 CFR section 1502.14 which provides : "§1502.14 Alternatives including the proposed action. This Section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (§1502.15) and the Environmental Consequences (§1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. In this section agencies shall: (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits. (c) Include reasonable alternatives . not within the · jurisdiction of the lead agency. (d) Include the alternative of no action. (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference. (f) Include appropriate mitigation measures not already included in the proposed action or alternatives." An alternative which requires that the SWP and CVP be operated in accordance with current law is a reasonable alternative which must be rigorously and objectively evaluated. The Water Fix clearly ignores the law establishing the priorities for meeting needs within the Delta and other areas of origin including the needs of fish and wildlife.	Please see response to Comment 2510-19, above. To satisfy the requirements of CEQA and NEPA, an EIR/EIS must include a reasonable range of alternatives that would meet the purpose and need and all or most of the project's objectives. (See CEQA Guidelines, § 15126.6, subd. (a); 42 U.S.C. § 4332(2) (C) (iii); 40 C.F.R. §§ 1502.14, 1502.13.) Please refer to Master Response 4 (Alternatives) for additional information regarding how the alternatives, including the preferred 4A alternative, were developed in accordance with the law. Accordingly, the project objectives and purpose and need statement are the starting points for the state and federal agencies in developing the reasonable range of alternatives to be evaluated in detail in an EIR/EIS. (CEQA Guidelines, §§ 15124, subd. (b), 15126.6, subd. (a); 40 C.F.R. § 1502.13.) This process included numerous public workshops and scoping meetings, extensive input from agencies, stakeholders, and the public, and an extensive multi-level screening process to refine the alternatives to be carried forward for full analysis in the EIR/EIS. As explained in Final EIR/EIS Appendix 3A "Identification of Water Conveyance Alternatives," the alternative development process for the EIR/EIS was based upon a number of legal considerations including: (1) the legal requirements for adequate discussions of alternatives in an EIR and EIS, as set forth in CEQA and NEPA respectively, and the regulations and case law interpreting those statutory schemes; (2) the concepts of "potential feasibility" under CEQA and "reasonableness" under NEPA; and (3) the requirements of Water Code Section 85320 from the 2009 Delta Reform Act. The results of a multi-level screening process reflecting these considerations were further compared to the requirements of the Delta Reform Act and scoping comments related to the definition of potential EIR/EIS alternatives as identified by responsible and cooperating agencies under CEQA and NEPA, respectively.
2510	21	The purpose statement has changed a number of times in apparent response to the demands of applicant export water contractors. These contractors, who as permittees, are required to fund the objective and impartial review of the environmental impacts by the public regulatory agencies should not have been allowed to leverage changes in purpose so as to constrain the analysis towards their favored alternative.	The action alternatives would only export water allocated to the SWP and CVP under existing water rights, as limited by hydrologic conditions and regulatory requirements issued by the state and federal agencies. The alternatives, including the No Action Alternative, were developed to deliver SWP and CVP water up to the upper limit of legal SWP and CVP contractual water amounts, with the understanding that full contract amounts would not be delivered on average for the alternatives considered in the EIR/EIS, as described in Chapter 2, Project Objectives and Purpose and Need. DWR and Reclamation are responsible to deliver up to the full contract amounts in accordance with their authorizations for the SWP and CVP, respectively.

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		Of particular note is the addition and continued inclusion of the following: "Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of State and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements." (Emphasis added.) The ability of the SWP and CVP to deliver "full contract amounts" never existed and thus could not be restored or protected. The words "up to" conceivably should cover a range from zero deliveries to a high of what can be supported with full compliance with State and federal law and hydrologic conditions.	However, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in drier periods; and increase exports in the wetter periods when the river flows are high to improve conditions for aquatic resources in the Delta. The full contract amounts are anticipated to be delivered in the wetter periods. See Master Response 3 regarding project purpose and need and Master Response 4 regarding alternatives development.
2510	22	Although obviously not intended by those controlling the preparation of the EIS/EIR, a range of reasonable alternatives must be considered including substantially reduced and at times no exports from the Delta. The upper range is of course limited by law and hydrology. Export of water from the Delta is counter-productive to improving the ecosystem and the Water Fix has failed to present the environmental impacts and alternatives in a manner providing a clear basis for choice among options by the decision maker and the public as required by 40 CFR section 1502.14. The proposition that removal of natural flows into and through the Bay-Delta Estuary will improve the ecosystem is unique, bold and unsupportable. Reliability of water supply for exports from the Delta must be junior to the needs and obligations requiring water in the Delta and other areas of origin including fish and wildlife needs. The modeling and analysis should provide a clear confirmation of the types and numbers of years when no water will be available for export and provide estimates of the amounts that might be available in other years. Care should be taken to model carryover storage requirements with due consideration of meeting temperature, flow and statutory requirements to determine the firm yield available for export. Reliability of water supply for Northern California requires that water to meet the needs of and obligations to restore and even enhance fish not be exported.	See the response to Comment 2510-16, above. As shown in Appendix 5A, Section C, water deliveries to SWP and CVP water contractors (not including other water rights holders, Sacramento River Settlement Contractors, and San Joaquin River Exchange Contractors) in dry and critical dry years would be approximately 45 percent of the deliveries over the long-term average. See Master Response 26 regarding area of origin protections.
2510	23	Both State and Federal laws seek to prevent degradation of water quality. Isolated conveyance will remove the higher quality Sacramento River water from the Delta pool thereby reducing the dilution of the poorer quality water returning to the Delta by way of the San Joaquin River from SWP and CVP operations which deliver water to the west side of the San Joaquin Valley. The delivery of such water to the San Luis Unit was prohibited by the San Luis Act of 1960 unless there was a Valley Drain with an outlet to the ocean. (See Exhibit 18) [BDCP1561:ATT18]. The prohibition was circumvented. Even the promise that "A much needed drainage system and water supply will be provided in the San Joaquin Valley" included in ballot argument in favor of the California Water Resources Development Act (SWP) was not kept. (See Exhibit 16) [BDCP1561:ATT16]. The Purposes unreasonably seek to maintain and increase exports from the Delta to the west side of the San Joaquin Valley which degrade Delta water quality. The commitment to isolated conveyance aggravates	Constituents of concern have been identified through an ongoing regulatory monitoring, and environmental planning processes. The water quality analysis in the RDIER/RDEIS and Final EIR/EIS covering the new sub alternatives, including the new preferred project (Alt 4A), and Appendix A provide a thorough analysis of important water quality constituents of concern at multiple locations throughout the Delta, including CVP/SWP export service area, to present the potential water quality effects that could result from implementing the project alternative. As discussed in the RDEIR/SDEIS and confirmed in the Final EIR/EIS, the preferred project would result in only one water quality impact that cannot be mitigated to less than significant levels: effects on microcystis bloom formation, which is due to habitat restoration components of project. There is no substantial evidence in the record that the California WaterFix will have a significant adverse impact on water quality by reducing dilution of contaminants in San Joaquin River water. Furthermore, the Delta Reform Act required the DEIR/DEIS for BDCP to study a reasonable range of Delta conveyance alternatives and the EIR/EIS, including through-delta, dual conveyance, and isolated conveyance

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		such degradation.	alternatives. Contrary to the comment, neither the BDCP nor the California WaterFix is an isolated conveyance alternative. Each is a dual conveyance alternative. Please see Master Response 4 for alternatives development and Master Response 14, Water Quality, for further discussion of water quality issues.
2510	24	The provision of salinity control and an adequate supply for the Delta was deemed to be of utmost importance and is a critical feature of a reliable supply for the Delta. Dam. Salinity control for the Sacramento-San Joaquin Delta is a primary purpose for Shasta Water Code Section 11207 provides: "§11207. Primary purposes Shasta Dam shall be constructed and used primarily for the following purposes: (a) Improvement of navigation on the Sacramento River to Red Bluff. (b) Increasing flood protection in the Sacramento River. (c) Salinity control in the Sacramento-San Joaquin Delta. (d) Storage and stabilization of the water supply of the Sacramento River for irrigation and domestic use. (Added by Stats. 1943, c 370, p. 1896)	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. See Master Response 3 regarding project purpose and need.
2510	25	The Delta Protection Act of 1959 in WC 12200 specifically provides: "It is, therefore, hereby declared that a general law cannot be made applicable to said Delta and that the enactment of this law is necessary for the protection, conservation, development, control and use of the waters in the Delta for the public good." The degradation of water quality in the Delta adversely impacts agricultural, industrial, urban and recreational (including fish and wildlife) uses in the Delta and surrounding areas as well as areas served with exports from the Delta.	Degradation (i.e., the lowering) of water quality alone does not equate with adverse effects to beneficial uses. The degree and frequency of degradation and resulting water quality concentrations relative to effects thresholds are what must be evaluated to determine whether adverse effects will occur. Water quality degradation was addressed for each constituent assessed in detail Chapter 8, Water Quality, for all alternatives via thresholds of significance #3 and #4 provided in Section 8.3.2.3. These thresholds consider potential effects of degradation to designated uses of the surface water bodies in the affected environment, including the uses identified in this comment.
2510	25	The Delta Protection Act of 1959 in WC 12200 specifically provides: "It is, therefore, hereby declared that a general law cannot be made applicable to said Delta and that the enactment of this law is necessary for the protection, conservation, development, control and use of the waters in the Delta for the public good." The degradation of water quality in the Delta adversely impacts agricultural, industrial, urban and recreational (including fish and wildlife) uses in the Delta and surrounding areas as well as areas served with exports from the Delta.	Degradation (i.e., the lowering) of water quality alone does not equate with adverse effects to beneficial uses. The degree and frequency of degradation and resulting water quality concentrations relative to effects thresholds are what must be evaluated to determine whether adverse effects will occur. Water quality degradation was addressed for each constituent assessed in detail Chapter 8, Water Quality, for all alternatives via thresholds of significance #3 and #4 provided in Section 8.3.2.3. These thresholds consider potential effects of degradation to designated uses of the surface water bodies in the affected environment, including the uses identified in this comment.

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2510	26	Except as provided by agreement, salinity control and the adequacy of the quality of the water supply for the Delta is determined by water quality objectives set by the SWRCB. Such objectives provide the minimum level deemed necessary to protect beneficial uses. Although the objectives are set for certain uses for certain periods, it is the composite of all objectives which the SWRCB determined would provide the protection for all beneficial uses. Such objectives have at times been violated and it is critical to the rigorous and objective analysis of alternatives to incorporate with and without compliance conditions. Federal law is specific as to the obligations for the CVP. PL99-546 (HR3113) specifically provides: "(b)(1) Unless the Secretary of the Interior determines that operation of the Central Valley project in conformity with State water quality standards for the San Francisco Bay/Sacramento-San Joaquin Delta and Estuary is not consistent with the congressional directives applicable to the project, the Secretary is authorized and directed to operate the project, in conjunction with the State of California water project, in conformity with such standards. Should the Secretary of the Interior so determine, then the Secretary shall promptly request the Attorney General to bring an action in the court of proper jurisdiction for the purposes of determining the applicability of such standards to the project. (2) The Secretary is further directed to operate the Central Valley project, in conjunction with the State water project, so that water supplied at the intake of the Contra Costa Canal is of a quality equal to the water quality standards contained in the Water Right Decision 1485 of the State of California Water Resources Control Board, dated August 16, 1978, except under drought emergency water conditions pursuant to a declaration by the Governor of California. Nothing in the previous sentence shall authorize or require the relocation of the Contra Costa Canal intake." (See Exhibit 19. [BDCP1501:ATT19]) Section (b)(l) does not allow for the Bureau of Reclamation to operate the CVP without conforming to the State water quality standards for the San Francisco Bay/Sacramento-San Joaquin Delta and Estuary even if the SWRCB is willing to lo_ok the other way. A determination by a court of law is required. There are specific processes and procedures for changes to Water Quality Control Plans including review by the United States EPA, which are not being considered. Section (b)(l) is thus applicable and requires USBR and USF&WS compliance unless the Secretary of Interior makes a determination that compliance is inconsistent with congressional directives applicable to the project and then the Attorney General is to be requested to bring a legal action for a court determination of the applicability of the standards. There is no such court determination that would allow the CVP to operate without conforming to the standards. Section (b)(2) provides an additional constraint with regard to the water quality at the intake to the Contra Costa Canal. Even if the standards were determined by the court to not be applicable to the CVP, then the D-1485 water quality standards would be applicable to the intake of the Contra Costa Canal except under drought emergency water conditions pursuant to a declaration by the Governor of California.	Operation of the SWP/CVP occurs in a dynamic and challenging environment. Among other things, SWP/CVP operations are constantly adjusted to compensate for hydrologic and tidal influences to ensure that SWP/CVP remain in compliance with the flow and water quality standards established by the State Water Board to protect other legal users of water as well as the environment. The new CWF diversion locations will increase the options available to SWP/CVP operators and increase the flexibility to more effectively balance the Bay-Delta system in real-time to protect all beneficial uses of water whether for water supply, water quality, or fishery protection purposes. SWP/CVP operators have had a high degree of success in meeting all operative water quality standards since 1978. Even though rare instances of water quality exceedances have occurred, these instances have been due to factors beyond the SWP/CVP's reasonable control. With the North Delta Diversion, the SWP/CVP still will be required to meet all salinity and flow objectives regardless of which diversion location is being used. Also see Master Response 14, Water Quality. Please see Master Response 26, Area of Origin, and Master Response 32, Water Rights.

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		In 2004 Congress passed another law to ensure that Delta water quality standards and PL 108-361 (HR 2828) in pertinent part provides: (D) "Program to Meet Standards. - (I) In General. - Prior to increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a project to meet all existing water quality standards and objectives for which the Central Valley Project has responsibility." (See Exhibit 20: [BDCP1501:ATT20]) Increasing exports from the Delta which to the extent such are for serving south-of-Delta Central Valley Project contractors would be directly contrary to the direction of Congress which was to assure that all existing (October 25, 2004) water quality standards and objectives would first be met. The Water Fix at ES.1.2.2.2 states: "It is not intended to imply that increased quantities of water will be delivered under the proposed project." At best this statement is misleading and at worst is a lie. Figure 4.3.1-16 shows Alternative 4 H3 (ELT) as increasing average annual wet year exports by 624,000 acre feet over existing conditions and by 1,522,000 acre feet over the No Action Alternative. At page 4.3 .1-5 it is stated: "Under Alternative 4A, average annual CVP south of Delta agricultural deliveries as compared to No Action Alternative would increase by up to 12% at ELT and by up to 13% at LLT." At page 4.3.1-7 it is stated: "Therefore, average annual total SWP deliveries and average annual total SWP south of Delta deliveries under Alternative 4A would show a decrease or an increase as compared to conditions without the project depending upon the range of spring outflow requirements." At page 4.3 .1-9 under CEQA Conclusion it is stated: "Alternative 4A would decrease water transfer demand compared to existing conditions. Alternative 4A would increase conveyance capacity, enabling additional cross-Delta water transfers that could lead to increases in Delta exports when compared to No Action Alternative." Contrary to Water Code Section 85021 the project will increase rather than decrease export reliance on the Delta.	
2510	27	The bdcp/water fix has unreasonably defined purposes and need to constrain delta ecosystem improvements to alternatives which convert agricultural land to habitat rather than reduce swp and cvp export of water needed to provide adequate water flow and quality	Please see Master Responses 3 and 4 respectively, for a discussion of project purpose and need development, as well as alternatives selection.
2510	28	There is strong evidence indicating that fish need water flowing into and out of the Delta to the Bay. The timing and amounts are the subject of ongoing debate and evaluation. The SWP and CVP affect flow into and out of the Delta primarily through diversions to storage and direct diversions from the tributaries and from locations in the Delta to areas outside the Delta. The reliability of water supply for fish at times directly conflicts with the	As described in response to Comment 2510-16, the CALSIM II model assumptions prioritize water releases from the SWP and CVP reservoirs to meet Delta outflow and water quality criteria above other water uses. Water demands for fisheries and senior water rights are subsequently met prior to deliveries to SWP and CVP water contractors.

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		reliability of the water supply for SWP and CVP deliveries for other purposes and in particular exports from the Delta. The priorities for providing such reliability are established by law.	
2510	29	Water Code Section 85086 of the Delta Reform Act of 2009 assigned to the SWRCB the task of determining instream flow needs and new flow criteria for the Delta ecosystem necessary to protect public trust resources. Such determinations have not yet been completed, yet the RDEIR/SDEIS has been prepared and steps towards design and construction are underway. Such flow criteria are important to the required rigorous exploration and objective evaluation of all reasonable alternatives required by 40 CFR 1502.14. The rush to decision in advance of critical evaluations is further evidence of predetermination and lack of a good faith effort at full disclosure and analysis of impacts.	As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta to improve aquatic resources habitat conditions. This report was completed by the State Water Resources Control Board in accordance with the requirements of the Delta Reform Act. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights. See Master Response 13 regarding public trust considerations, Master Response 31 regarding compliance with the Delta Reform Act, and Master Response 4 regarding alternatives development.
2510	30	Driving the need for ecosystem restoration is the need to address the dramatic decline in fish species and in particular those in danger of extinction. The RDEIR/SDEIS continues the proposition that habitat in the Delta and factors other than the amount flow into and through the Delta are the cause of the subject fish declines. The impacts of the SWP and CVP diversions to storage and diversions for export of water that is not truly surplus are discounted. The projects divert to storage and divert from the Delta the winter and spring natural flows that would otherwise flush the Delta and push back salinity from the bay. Export pumping reverses flows and entrains fish. Export of water released from storage depletes the amounts needed to meet senior requirements including fish and wildlife requirements. The export of water from the proposed intakes on the Sacramento River where there are far greater numbers of fish will likely increase losses of fish, eggs and larvae due to entrainment and the impacts of screening. Unlike passage through the channels of the Delta passage through the tunnels does not allow for escape. Predators will surely occupy the proposed Sacramento River intakes, forebays and tunnels. The related impacts to fish and wildlife have not been adequately examined. The correlation between SWP and CVP exports and the decline of the fisheries has been a concern for many years. In August of 1978 the State Water Resources Control Board rendered its Water Right Decision 1485. The Decision was the culmination of 32 days of evidentiary hearing initiated on November 15, 1976 and concluded on October 7, 1977. At that time the striped bass index was considered to be the indicator of ecosystem health for the Delta and Suisun Marsh. Striped bass were in effect the "canary in the coal mine". As the years passed and striped bass populations plummeted, the water exporters claimed striped bass to be invasive species, predators on endangered species and major cause of fish declines wrongfully attributed to the export of water. The canary died and the death was ignored to facilitate greater exports. As Exhibits 22- 25 show, striped bass, steelhead, Delta smelt, fall-run Chinook salmon and winter-run Chinook salmon all co-existed at relatively high	The comments are noted. Please note that the preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft BDCP Draft EIR/EIS. Alternative 4 (AKA BDCP) remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 BDCP Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. Restoration proposed would be designed to mitigate for lost habitat values. The preferred alternative includes Delta flow standards from the Bay Delta Water Quality Control Plan, which take into account flow needs for fisheries amongst other uses, as well as the operational requirements of the USFWS (2008) BiOp related to fall X2 and south Delta flow requirements that are at least as protective as those in the USFWS/NMFS BiOps. Real-time operational adjustments would be made to minimize effects to migrating juvenile salmonids. See Section 4.1.2.2 in the RDEIR/SEIS for description of operational criteria under the preferred alternative.

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		populations at lower export levels. In 1978 the SWRCB concluded in D-1485 at page 13 that: "To provide full mitigation of project impacts on all fishery species now would require the virtual shutting down of the project export pumps." (See Exhibit 21.) The SWRCB also concluded in D-1485 at page 14 that: "Full protection of Suisun Marsh now could be accomplished only by requiring up to 2 million acre feet of fresh water outflow in dry and critical years in addition to that required to meet other standards." (See Exhibit 21.) Exports from the Delta were not curtailed and the additional 2 million acre feet of outflow was not provided for the marsh. Exhibits 22-25 show that significant declines in fish populations commenced when annual exports reached 2 million acre feet. Increased development in the watersheds and the effects of climate change would indicate that additional water yield would have to be developed within the Delta watershed to provide a comparable level of fish protection for the future and maintain the 2 million acre feet of exports. Little or no export water in dry years and more in wet years would likely be necessary in any event. An examination of the fish population graphs indicates that restoration of the ecosystem for fish is not correlated with Delta wetland habitat conditions in the 1850's or at all. The likely relationship is to water conditions, particularly flow.	
2510	31	The Delta was fully leveed and reclaimed by about 1930. "By 1930 all but minor areas of the swampland had been leveed and were in production." (See page 8 of December 1960 Bulletin 76 - Exhibit 14. [BDCP1501:ATT14]) The USACE completed project levee construction on the San Joaquin River in the early 1960's. There are no significant changes in leveed areas or even riverine habitat which appear to be the cause of the decline of the fisheries. In fact, there have been increases in Delta wetland habitat during the periods of apparent decline. Mildred Island flooded in 1983 and has not been reclaimed. Little Mandeville and Little Frank's Tract flooded in the 1980's and have not been reclaimed. Lower Liberty Island levees were not restored and the area has been in a tidal wetland condition since at least 2002.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2510	32	The focus on conversion of Delta land to habitat as a substitute for water for fish is misplaced and the result of the manipulated BDCP/WaterFix purposes. Adequate analysis has not been done to determine if development of shallow wetland habitat is actually detrimental to salmon and other anadromous fish. In particular, stranding and predation from otters, egrets, herons, cormorants, gulls, white pelicans and the like needs further analysis. The limited study (Exhibit 26) showing a picture of larger salmon smolts raised for a time in a wetland versus smaller smolts raised in the channel is cited by BDCP/WaterFix proponents as the evidence that shallow seasonal wetland in the Delta would" be a substitute for flow and justification for a 50 year take permit. The study	The comment focuses on restoration of floodplain habitat, which although proposed under the BDCP, is not proposed under the preferred alternative that was analyzed in the RDEIR/SEIS (Alternative 4A, California WaterFix). Alternative 4A, the preferred alternative, does not rely on floodplain or other habitat restoration as a substitute for flow. The operational criteria proposed are intended to minimize and avoid any significant or adverse effects to fish, with relatively limited restoration mitigation to offset potential reduced availability of riparian benches in the Sacramento River near the north Delta intakes. The potential benefits of floodplain restoration to juvenile salmonids are generally recognized, and are required under the National Marine Fisheries Service (2009) biological opinion for the State Water Project and Central Valley Project. However, as previously stated, while the HCP alternatives proposed floodplain restoration, the preferred

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		monitored caged smolts in the channel where the fish must constantly swim against the current and compared those smolts to smolts in cages in shallow wetlands where there was little or no current. The experiment did not attempt to evaluate stranding or predation and it is doubtful that the smolts in the channel cages if uncaged would spend as much time swimming against the stronger currents rather than seeking areas of the channel where the velocity is lower. The presentation of results by BDCP including the fat fish/skinny fish photo neglected to show the sizes of the fish from the cages in the channel upstream of the shallow habitat which reportedly were comparable to those in the wetlands. "During periods of low, clear water, fish growth rates in the river site above the floodplain were comparable to those in the floodplain". (Exhibit 26 [BDCP1501:ATT20], pg. 1.) Creation of Floodplain Habitat Is Not a Substitute .for Flow The available evidence and studies do not support such a substitution. The floodplain habitat which is suggested as potentially beneficial is that which is inundated by high flows for a limited period; involves a large area of water of a proper depth to help avoid predation; assumes avian predator populations are limited; is properly drained to avoid stranding and avoids increased water temperatures detrimental to salmonids. The Jeff Opperman Final Report for Fellowship R/SF-4 referenced above containing the picture of the fat fish and skinny fish is often shown as support for the proposition that floodplain habitat can be substituted for flow (Exhibit 26.) The study does not put forth that conclusion but suggests "that juvenile Chinook benefit from access to flQodplain habitats". (Page 2) It is important to recognize that the test fish were caged and thus predation from birds, fish and other animals was not an issue. Stranding was down-played but admittedly not tested. The test was conducted in and along the Cosumnes River. The skinny fish were in the river swimming against the current and because they were in cages and couldn't move with the current or move to quiet and more productive water. The fat fish obviously saved their energy for growth and apparently benefitted from improved food availability. The report states "During high flows the river offers poor habitat and fish living in this type of habitat will tend to be displaced downstream." High flows and displacement downstream are likely not detrimental. It is generally accepted that the salmon do well in high flow years. The return of adults (escapement) is usually higher two and one-half years after a high flow year. It is recognized that ocean conditions also play a part and may in some cases reduce escapement nullifying the benefit of high flow. The difference in food availability in the high flow channel versus in the quiet water may not be significant in the test given the consumption of energy and lack of opportunity for the skinny fish to move to more favorable parts of the river. Displacement downstream into the cooler and more productive parts of the estuary is likely not bad for displaced salmon smolts.	alternative does not, and it is assumed in the environmental baseline that such restoration would occur in the Yolo Bypass. With reference to the commenter's specific example of differential growth rates of caged fish in floodplain versus in-river habitats, higher growth rates of floodplain-released fish versus in-river fish have also been observed for fish that were not caged, but marked and released, then recaptured (Sommer et al. 2001. Canadian Journal of Fisheries and Aquatic Sciences 58: 325-333). As the commenter notes, floodplain habitat must limit the potential for stranding and predation, while providing growth opportunity.
2510	33	Floodplain Habitat Not Accompanied by High Flow Does Not Appear to Result in Increased Chinook Salmon Ocean Survival and May Not Improve Survival of Sacramento River Juvenile Chinook Salmon Migrating to the Ocean. In the study titled "Floodplain Rearing of Juvenile Chinook Salmon: Evidence of enhanced growth and survival" by Sommer, et al. (2001), a copy of which is Exhibit 27, tests were	The referenced documents in this comment appear to be related to increased extent and duration of inundation in the Yolo Bypass that would occur under the No Action Alternative and under the proposed project, Alternative 4A. Because the actions related to the Yolo Bypass would occur under the No Action Alternative in accordance with the 2009 National Marine Fisheries Service biological opinion for the long-term coordinated operation of the CVP and SWP, these actions are not being considered under this

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		conducted in the Yolo Bypass in 1998 and 1999. The study concluded that during such years salmon increased in size substantially faster in the seasonally inundated agricultural floodplain than in the river, suggesting better growth rates. The study, however, provides: "Survival indices for coded- wire-tagged groups were somewhat higher for those released in the floodplain than for those released in the river, but the differences were not statistically significant. Growth, survival, feeding success, and prey availability were higher in 1998 than in 1999, a year in which flow was more moderate indicating that hydrology affects the quality of floodplain rearing habitat". (Exhibit 27 [BDCP1501:ATT27], pg. 1.) In the discussion the authors provide: "Mean length increased faster in the Yolo Bypass during each study year, and CWT fish released in the Yolo Bypass were larger and had higher apparent growth rates than those released in the Sacramento River. It is possible that these observations are due to higher mortality rates of smaller individuals in the Yolo Bypass or of larger individuals in the Sacramento River; however we have no data or easonable mechanism to support this argument." "Elevated Yolo Bypass survival rates are also consistent with significantly faster migration rates in 1998, the likely result of which would be reduced exposure time to mortality risks in the delta, including predation and water diversions." In the study "Habitat Use and Stranding Risk of Juvenile Chinook Salmon on a Seasonal Floodplain" by Sommer, et al. (2004), a copy of which is Exhibit 28 [BDCP1501:ATT28], the authors build upon the above study with further testing in 2000 and present their analysis of ocean survival. The author's abstract provides: "Although juvenile Chinook salmon Oncorhynchus tshawytscha_are known to use a variety of habitats, their use of seasonal floodplains, a highly variable and potentially risky habitat, has not been studied extensively. Particularly unclear is whether a seasonal floodplain is a net "source" or net "sink" for salmonid production . . . Adult ocean recoveries of tagged hatchery fish indicate that seasonal floodplains support survival at least comparable with that of adjacent perennial river channels. These results indicate that floodplains appear to be a viable rearing habitat for Chinook salmon, making floodplain restoration an important tool for enhancing salmon production. (Emphasis added.) The data provided for ocean survival is as follows: Table 1 [ATT1]. - Number of coded wire tags recovered in the ocean and commercial fisheries for Chinook salmon released in the Yolo Bypass and Sacramento River. The total number of tagged fish released in each location for each year is shown in parentheses. The survival ration is calculated as the number of Yolo Bypass recoveries divided by the number of Sacramento River recoveries.	EIR/EIS as part of the project description of the proposed project.
2510	34	Release Group 1998 (53,000) 1999 (105,000) 2000 (55,000)	Please see the response to Comment 33, above.

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		Yolo Bypass	75	136	27	
		Sacramento River	35	138	47	
		Survival Ratio	2.14	0.99	0.57	
2510	35	In 1998 Yolo Bypass looked like a benefit, in 1999 it was a push and in 2000 Yolo Bypass looked like a detriment. It is assumed that shaded river aquatic habitat is desirable for special status fish. Attention is called to the BDCP Draft Chapter 8 which puts forth the need to control predators by removing structures which affect flow fields and provide shade. The focus appears to be on abandoned docks, pilings and the like, however, shaded river aquatic habitat can provide the same effect on flow and provide shade. The impact of shaded river aquatic habitat on special status fish is unclear.				The expected benefits of the Yolo Bypass Fisheries Enhancement Program (Conservation Measure 2) are described in the 2013 public draft BDCP. However, please note that Conservation Measure 2 is no longer included in the proposed project, Alternative 4A. Shaded riverine aquatic habitat is considered beneficial to native aquatic species by reducing water temperatures and providing food in the form of detritus and insects that fall into the water from tree canopies. When riverine trees occur adjacent to the channel, their trunks and root structures can also provide valuable resting and sheltering habitat for juvenile native fish and other aquatic species and enable them to escape predators. Conservation Measure 15 (Localized Reduction of Predatory Fishes) proposed in the 2013 public draft BDCP included the targeted removal of abandoned or derelict man-made aquatic structures such as old boats, docks, or piers that tend to provide good habitat for non-native predators, not native fish. However, note that the proposed project, Alternative 4A, no longer includes these proposed actions.
2510	36	There are a number of significant adverse impacts associated with so-called restoration of tidal floodplain habitat within the Delta which have not been objectively considered or mitigated. In the Delta where the waters are tidal the proposed habitat restoration is not necessarily floodplain but rather is tidal wetlands which is inundated most if not all of the time. Increased salinity intrusion could result from the increased tidal prism and/or creation of shortened pathways to the interior Delta and particularly to the large SWP and CVP intakes whether in the north Delta or south Delta.				The tidal habitat to be restored with the preferred alternative 4A is limited to that which may be required as part of the construction and operation of new Delta water conveyance facilities under WaterFix, and therefore is not expected to impact salinity levels (EC) in the Delta. The assessment in Chapter 8, Water Quality, does identify a significant impact to EC at Emmaton and Prisoners Point associated with operation and maintenance of the water conveyance facility under Alternative 4A, and mitigation has been provided to reduce this impact to less than significant.
2510	37	Setting back, breaching, degrading and/or not restoring levees in the Delta has significant adverse impacts.				Modification of levees would occur under the action alternatives at the location of construction of intakes and barge landings, as described in Chapter 3 of the EIR/EIS. Potential environmental changes related to these changes in the levees are described in Chapters 6, 9, 11, and 12. The project would not involve breaching, setting back, or degrading of levees as compared to the No Action Alternative. The California Department of Water Resources' Levee Repairs and Floodplain Management Office is responsible for administering levee programs through evaluation and direct rehabilitation of structural deficiencies in California's levee system. Overall levee repairs and improvement programs administered by DWR will continue with available funding. For additional information on the relationship between the proposed project and Flood protections in the Delta, please see EIR/EIS Appendix 6A BDCP/California WaterFix Coordination with Flood Management Requirements.
2510	38	Increases in the tidal prism at locations similar to and including the area in and around the lower Yolo bypass not only induces greater salinity intrusion, but also results in advection adversely affecting the out migration of salmon smolts some of which are endangered. The regularly or permanently inundated areas constitute increased habitat for predator species and increase ambush locations affecting the fish species of concern. The increase in water surface and wetland vegetation will greatly increase the evaporation and				The effects of tidal habitat restoration that the commenter suggests could occur have been analyzed for covered fishes in terms of changes in salinity and advection, as well as increases in predatory fish habitat. Note, however, that this comment is most applicable to the previously proposed BDCP (Alternative 4) and the other HCP alternatives that propose extensive tidal habitat restoration, including in the Cache Slough complex area highlighted by the commenter. Please note that the BDCP with expanded restoration habitat is no longer the preferred project. The preferred project is now Alternative 4A and no longer includes an

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		evapotranspiration of fresh water. In many cases there is an increased threat of flooding to surrounding areas due to increased fetch and wave action across the habitat area and increased seepage into adjoining levees and lands.	HCP. Alternative 4A has been developed in response to public and agency input. This alternative includes considerably less tidal habitat restoration, as required to mitigate for facility construction and operation effects. As described in Chapter 6 and Chapter 3 of the EIR/EIS, the extent of increased open water habitat for tidal natural community's restoration due to mitigation measures under Alternative 4A would be minimal as compared to habitat restoration under other action alternatives. During design of these open water tidal habitat areas, wind fetch studies will be completed during the design phase. If adjacent levees are identified as being subjected to increased wind fetch, those levees would be strengthened and possibly raised to avoid levee damage from waves or water entering the landside of the levee due to high waves. Unlike the large areas of islands to be restored for tidal habitat as described in the Draft EIR/EIS, the areas considered for aquatic resources mitigation would generally be located within partially or fully inundated areas along the existing waterways; therefore, the amount of water evaporated from these areas would be similar with or without the project. A portion of the mitigation areas also would be on upland lands to mitigate for disturbance of upland habitat due to construction and/or operations.
2510	39	There is also the harm to and loss of agricultural land and production.	Chapter 14, Agricultural Resources, impact analysis addresses the potential for effects associated with temporary construction activities, footprint of disturbance of new water conveyance facilities and CM2–CM11, CM13, CM15, CM16, CM20, CM21, or Environmental Commitments 3, 4, 6–11, 15 and 16 under the non-HCP alternatives, and operation of the action alternatives within the study area. Relying on spatial data from the California Departments of Conservation and Water Resources, as well as project-specific data describing the location of project components, this section considers conversion of agricultural land designated as Important Farmland (Prime, Unique, Statewide Importance, and Local Importance) and subject to Williamson Act contracts or in Farmland Security Zones. Project-specific data also determined whether features would create footprint effects that would be temporary/short-term or permanent in nature. The section also describes potential changes to agricultural viability from the project as it relates to operational effects on water quality, groundwater elevation, and inundation frequency. Finally, the section considers several indirect consequences on agricultural resources that may result from implementation of the action alternatives.
2510	40	Exhibit 29-1[BDCP1501:ATT29] contains excerpts from the April 2011 report by Dave Vogel titled "Insights into the Problems, Progress, and Potential Solutions for Sacramento River Basin Anadromous Fish Restoration" prepared for the Northem California Water Association and Sacramento Valley Water Users contains the results of studies which include the Liberty Island Ecological Reserve area. (The entire study can be viewed on the Northern California Water Association website by clicking on "Fisheries") At pages 112 and 113 the report provides: Subsequent, additional juvenile salmon telemetry studies were conducted by Natural Resource Scientists Inc. on behalf of the USFWS and CALFED in the north Delta (Vogel 2001, Vogel 2004). Triangulating radio-tagged fish locations in real time (Figure 61) clearly demonstrated how juvenile salmon move long distances with the tides and were advected into regions with very large tidal prisms, such as upstream into Cache Slough and into the flooded Prospect and Liberty Islands (Figure 62). During the studies, it was determined that some radio-tagged salmon were eaten by predatory fish in northern Cache Slough, near the levee breaches into flooded islands (discussed below). At page 120 the report provides: During recent years, there has been an emphasis to reclaim or	Habitat loss and degradation is the primary stressor on many Delta species, including salmonids, which spend a minor amount of their lifecycle in the Delta. Nevertheless, this component of their migratory route is important to their survival success and restoration has the potential to improve rearing and resting opportunities. The potential for benefits or adverse effects caused by restoration is directly related to the design and location of the restoration. While there are many well-understood concepts about the preferred habitats of salmonids and other fish, the dynamic interaction of restored areas with the rest of the estuary is not. The preferred alternative, 4A, is not an HCP and proposes restoration only to mitigate impacts. However, the Collaborative Science and Adaptive Management Program is focused on habitat restoration outcomes as one of 3 topics. As such, the effects of habitat restoration as a result of the project are not likely to be substantial due to the limited acreage that will be restored under Alternative 4A, but will provide opportunities for improved understanding of restored habitat function and value, that can lead to future restoration that is more likely to provide benefits for fish and limit any adverse effects.

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		create shallow, tidal wetlands to assist in re-recreating the form and function of ecosystem processes in the Delta with the intent of benefitting native fish species (Simenstad et al. 1999). Among a variety of measures to create such wetlands, Delta island levees either have been breached purposefully or have remained unrepaired so the islands became flooded. A recent example is the flooding of Prospect Island which was implemented under the auspices of creating shallow water habitat to benefit native fish species such as anadromous fish (Christophel et al. 1999). Initial fish sampling of the habitat created in Prospect Island suggested the expected benefits may not have been realized due to an apparent dominance of non-native fish (Christophel et al. 1999). Importantly, a marked reduction of sediment load to the Delta in the past century (Shvidchenko et al. 2004) has implications in the long- term viability of natural conversion of deep water habitats on flooded Delta islands into shallow, tidal wetlands. The very low rates of sediment accretion on flooded Delta islands indicate it would take many years to convert the present-day habitats to intertidal elevations which has potentially serious implications for fish restoration (Nobriga and Chotkowski (2000) due to likely favorable conditions for non-salmonid fish species that can prey on juvenile salmon. Studies of the shallow water habitats at flooded Delta islands showed that striped bass and largemouth bass represented 88 percent of the individuals among 20 fish species sampled (Nobriga et al. 2003). There have likely been significant adverse, unintended consequences of breaching levees in the Delta. There is a high probability that site-specific conditions at the breaches have resulted in hazards for juvenile anadromous fish through the creation of favorable predator habitats. The breaches have changed the tidal prisms in the Delta and can change the degree in which juvenile fish are advected back and forth with the tides (Figure 61; previously discussed). Additionally, many of the breaches were narrow which have created deep scour holes favoring predatory fish. Sport anglers are often seen fishing at these sites during flood or ebb tides. Breaching the levees at Liberty Island is an example (Figure 72 and 73). Recent acoustic-tagging of striped bass in this vicinity confirmed a high presence of striped bass (Figure 74, D. Vogel, unpub. data.) The increased loss of fresh water due to creation of tidal and wetland habitat is clear. Exhibit 29-2 is Table A-5 from DWR Bulletin 168, October 1978 which shows the annual Et values for various crops and for Riparian Vegetation and Water Surface. The Riparian Vegetation and Water Surface 67.5 inches can be compared to tomatoes 33.8 inches and alfalfa 46.0 inches. The increased fresh water loss is from 33.7 inches when compared to tomatoes and 21.5 when compared to alfalfa. The increased loss of fresh water is particularly significant in drier years. The Division of Water Resources (predecessor to The Department of Water Resources) in the Sacramento - San Joaquin Water Supervisor's report for the year 1931 dated August 1932 and designated Bulletin 23 includes the results of studies of water consumption of tules and cat-tails. Exhibit 29-3 includes Tables 69, 74, 75 and 77 from such report. Consumptive use for open water surface is shown as 4.91 acre feet per acre, tules at 9.63. acre feet per acre, and alfalfa at 3.51 acre feet per acre. To examine the relatively high consumptive use for tules the U.S. Department of Agriculture undertook a continuation of the study of consumptive use for asparagus, tules and cat- tails. The tables show an	

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		average of 14.63 acre feet per acre for cat-tails and 13.48 acre feet per acre for tules. Results from cat-tails and tules grown in tanks at Camp 3, King Island for 1931 are shown in Table 77. The results for normal sized tules was 8.0 acre feet per acre.	
2510	41	ATT2: Insights into the Problems, Progress, and Potential Solutions for Sacramento River Basin Native Anadromous Fish Restoration	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	42	ATT3: Telemetered Locations of Salmon Smolts	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	43	ATT4:Predation "Hot Spots"	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	44	ATT5:Acoustic-Tagged Adult Striped Bass	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	45	ATT6:1976-77 Estimated Crop Et Values Delta Service Area	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	46	ATT7:Unit Consumptive Use of Water in Sacramento-San Joaquin Delta	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	47	ATT8: Use of Water by Cat-Tails Grown In Tanks, Near Clarksburg	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	48	ATT9: Use of Water by Tules Grown in Tanks, Near Clarksburg	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	49	ATT10: Use of Water by Cat-tails and Tules Grown in Tanks at Camp 3, King Island	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2510	50	ATT11: Use of Water by Tules Grown in Tanks at Simmons Island, Near Bay Point, 1931	Please see the response to Comment 40, above. The comment does not raise any additional environmental issues related to the environmental analysis.
2511	1	In its July 28, 2014 comments on the BDCP, the County expressed grave concerns about the devastating and irreversible effects the proposed new water intake and conveyance structures and operations would have on the socioeconomic fabric, physical landscape, and water supplies of the Delta. The County devoted countless hours of technical staff and legal counsel review of the DEIR/DEIS and submitted extensive comments focusing on a wide range of near and long-term impacts and issues relating to water operations, flood control, water supply, land use, agricultural sustainability, socioeconomic effects, and governance. The County has expended substantial resources, at considerable cost, to review the extensive collection of new and revised documents circulated for public review. To the County's dismay, virtually none of the issues raised in its 2014 comments were addressed in the RDEIR/RDEIS, nor were such issues substantially ameliorated by the changes to the proposed project. While the revised environmental documents state the new preferred alternative ("4A") would result in reduced visual impacts related to the	Section 1 of the RDEIR/SDEIS describes where various revisions to the 2013 Draft EIR/EIS were made and Appendix A provides tracked-changes in resource chapters. Section 1 of the RDEIR/SDEIS also describes a number of additional issues raised in the public and technical review of the Draft EIR/EIS that do not warrant inclusion in the RDEIR/SDEIS, but would be explained or addressed in the Final EIR/EIS revisions. Section 1.4 of the RDEIR/SDEIS specifically identified those issues that are addressed in the Final EIR/EIS.

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		elimination of the above-ground pumping stations, the bulk of the unchanged Project - the proposed diversions, associated forebay, conveyance facilities, associated above-ground and subsurface disturbances--continue to create unacceptable significant and unavoidable impacts to the physical, cultural, socioeconomic, and water supply environs of the Delta community.	
2511	2	Despite its re-branded moniker, the "CalWaterFix " Project (Project) does not "fix" the overarching scientific, environmental, and public policy problems associated with the draft BDCP or the siphoning of Delta water supplies for the benefit of south of Delta agricultural and urban interests. The CalWaterFix Project and RDEIR/RDEIS, like the BDCP and DEIR/DEIS, are fatally flawed and both the current and previous preferred alternatives are an unacceptable policy choice because they: (1) are based on flawed hydrologic modeling, and erroneous, incomplete and biased scientific analysis ; (2) impose a disproportionate burden of the impacts of a project designed to benefit agricultural and urban water users south of the Delta on County residents and the local environment; and (3) fail to demonstrate that such impacts will be sufficiently mitigated. With its repeated, fundamentally defective environmental review and scientific support, the Project remains an unjustified and deceptive strategy that will fail the Delta Reform Act's mandated coequal goals.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights or reduction in total water rights issued to DWR and Reclamation. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board, as described in Chapter 5, Water Supply of the EIR/EIS. For additional details regarding the adequacy of the hydrologic modeling used, please see Master Response 30. For additional details regarding impacts and mitigation to agricultural resources, please see Master Response 18, and for additional details regarding the adequacy and sufficiency of mitigation, please see Master Response 22.
2511	3	The Project shifts fish impacts from the South Delta to the North Delta while increasing the severity of the impacts in the process. To the extent the Project denigrates conditions for protected fish species by impacts from the diversion facilities and decreased water quality, the Project compromises the reliability of the County's water supply. Degradation of existing Delta water and fish habitat by the Project creates conditions that lead to potentially more stringent restrictions on existing diversions upstream and downstream of the Project intakes. For these reasons, and those stated in the County's July 28, 2014 comments on the DEIR/DEIS, and herein, and as amply demonstrated by the comments and criticism levied on the BDCP and CalWaterFix Project by federal resource agencies, the Delta Independent Science Board, local governments and nongovernmental organizations, the Project and accompanying environmental studies demonstrably fail to satisfy the requirements of CEQA and NEPA or the coequal goals as established by the Delta Reform Act.	The shift in point of diversion from the existing south Delta facilities to the proposed NDD changes the types of effects on fish and hydrodynamics in the Delta, but the severity of impacts varies by species. As described in the Final EIR/EIS, Chapter 11 analysis, species that are not typically near the proposed NDD but that have historically been entrained in the south Delta, will benefit from the preferred alternative, 4A. Sacramento River species, such as winter-run Chinook, will need to pass the proposed NDD, but bypass flows built into the operational criteria and the Real Time Operations transitional criteria, allowing for rapid response to fish presence, would minimize and avoid impacts to these fish during their migration. Interior Delta flows would improve as a result of less reliance on the south Delta facilities, promoting more successful out-migration of these fish. Regarding water quality degradation, only EC was identified as a parameter that would have degradation that would have the potential to adversely affect agricultural beneficial use (in the late summer) and only at Emmaton. Mitigation Measure WQ-11 was provided to reduce this impact to a less than significant level. The heart of the California WaterFix is a proposed project that sets forth actions needed for a healthy Delta, building upon the framework set forth through the CALFED Program and Delta Vision processes. In February 2008, Governor Schwarzenegger directed DWR to proceed with the NEPA/CEQA analysis of four alternatives for Delta conveyance (consistent with the alternatives analyzed in the EIR/EIS; see Chapter 3, Description of Alternatives). For additional information regarding the Delta Plan and the proposed project, please refer to Master Response 31.
2511	4	Clearly much technical effort has been invested by the BDCP/CalWaterFix proponents to try to demonstrate that the twin tunnel project somehow provides a benefit to water supply reliability and management for the entire State. However, it does not recognize or respect the true human and habitat values of the Delta in its analysis. Despite the compendium of reports, studies and data produced, it has failed miserably to prove itself out. At the end of	The Final EIR/EIS includes detailed analyses of Alternatives 2D, 4A, and 5A as compared to the Existing Conditions and the No Action Alternative. The Executive Summary of the Final EIR/EIS includes a summary of the impact analyses and related mitigation measures for potentially adverse impacts. Please see Master Response 24 regarding the Delta as a place and community impacts. The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for

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		the day, quantity of information is simply not a substitute for quality. The project proponents continue to ignore the true nature of the project, leave unaddressed the disproportionate impacts that will be felt by the Delta community and the Northern California region, and point to hollow promises for the future to justify moving ahead now. If this project was to be approved, there is little doubt that those promises would remain unfulfilled long after it has left an indelible scar across the Delta and the State. If this project will not help leave the Delta a better place, it has no place in the Delta.	endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (e.g., Cal. Wat. Code, § 85001[c]). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11, in the Final EIR/EIS. The Federal and State Lead Agencies have done their best to make the EIR/EIS for the proposed project as fair, objective, and complete as possible. The Lead Agencies are following the appropriate legal process and are complying with CEQA and NEPA in preparing the EIR/EIS for the proposed project. These agencies readily acknowledge, however, that the document addresses a number of topics for which some scientific uncertainty exists. Such uncertainty can give rise to differing opinions as to what conclusions may be reached.
2511	5	The County of Sacramento remains committed to reasonable, collaborative actions and alternatives based on the best available science which address the statutory mandate for a more reliable water supply for California. However, to be viable, any solution must be achieved in a manner that protects and enhances the Delta ecosystem and the Delta as a unique and irreplaceable cultural, recreational, agricultural and environmental resource. Because the BDCP/CalWaterFix fails to meet these standards, the County remains adamantly opposed to both the original project and the new alternatives, including the new preferred alternative 4A.	For more information regarding the proposed project's compliance with the Delta Reform Act (including provisions for protecting, restoring, and enhancing the Delta ecosystem; and provisions that would protect and enhance the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place) please see Master Response 31.
2511	6	Significantly, the RDEIR/SDEIS fails to adequately address or answer basic questions regarding short- and long-term protection, enhancement, and mitigation for the loss of the many values and resources unique to the Sacramento River Delta (e.g., agriculture, recreational, cultural/tourism, and critical natural habitat). The unwieldy and complex structure and sheer size of the RDEIR/SDEIS is virtually unusable to the average citizen or expert alike. It does not provide meaningful information about many of the Project's adverse effects and it omits consideration of many impacts of concern to the County. In these ways the RDEIR/SDEIS fails to summarize and convey information essential to the understanding of Project impacts in a manner reasonably calculated to inform the readers and decision makers, in violation of NEPA's readability requirement and CEQA. Given these shortfalls (not an all-inclusive list), the RDEIR/SDEIS fails to adequately provide the requisite, accurate environmental documentation necessary for the local citizenry and public decision makers to reach an informed and thoughtful determination on whether the Project will realistically address the statutory "coequal goals" mandate of "providing a reliable water supply for the State while restoring the Delta's ecosystem," without destroying its existing fragile and irreplaceable socioeconomic and ecosystem framework.	To assist reviewers, the Lead Agencies provided a "Document Review Road Map" at the beginning of the RDEIR/SDEIS. Chapter 1, Section 1.3, of the RDEIR/SDEIS describes the contents of the document and provides references to the locations where readers may find specific discussions and analyses. Table 1-2 in the RDEIR/SDSEIS identifies the exact portions of the Draft EIR/EIS that are modified in the RDEIR/SDEIS. To avoid presenting thousands of pages of unchanged content, the Lead Agencies did not provide the entire Draft EIR/EIS within the RDEIR/SDEIS. Because the entire Draft EIR/EIS was not presented a second time, the RDEIR/SDEIS contains clear cross-references to the earlier document. The Final EIR/EIS contains the full contents of the Draft EIR/EIS and RDEIR/SDEIS without references to earlier documents. See Master Response 38 for further discussion of document organization.
2511	7	The RDEIR/SDEIS Fails to Address the County's Prior Comments on the Effects of the Proposed North Delta Diversions & Conveyance. The County of Sacramento provided extensive comments on the DEIR/DEIS--a total of 73 pages of detailed comments supported by comprehensive attachments. It appears that most of the concerns raised in these comments were not addressed in the supplemental or	Consistent with the requirements of the California Environmental Quality Act (CEQA Guidelines § 15088) and the National Environmental Policy Act (Council on Environmental Quality § 1503.4) and policies held by all Lead Agencies governing the implementation of CEQA and NEPA, all comments received on the DEIR/EIS and RDEIR/SDEIS are included with the Final EIR/EIS. Please see Master Response 42 regarding treatment of public comments.

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		revised analyses included in the RDEIR/SDEIS, including the new evaluation of Alternative 4A and Alternatives 2D and 5A. For example, the County commented on the Project's impacts to agricultural resources, including impacts from loss of agricultural productivity and prime farmlands, changes to water quality, and groundwater-related water supply impacts to Delta communities. The County also commented that the failure to include a defined operational plan for the new diversion makes it impossible to understand the Project or its effects on flows, water quality and water supply. These comments remain unaddressed in the RDEIR/SDEIS. More unaddressed comments are described later in these comments. Because no changes were made to the Project or RDEIR/SDEIS that would address the vast majority of these concerns, to the extent new alternatives, including Alternative 4A, are similar to the previously proposed BDCP CM1, the County's prior comments apply to the CalWaterFix Project and RDEIR/SDEIS, and the County reasserts its prior comments here and incorporates them by reference as comments on the RDEIR/SDEIS and CalWaterFix Fix Project alternatives.	
2511	8	The RDEIR/SDEIS Omits or Buries Essential Information, Violating CEQA and NEPA Requirements that It Actually Inform the Reader. A major criticism of the DEIR/DEIS was that it failed to summarize and convey information essential to the understanding of Project impacts in a manner reasonably calculated to inform the readers and decision makers, in violation of NEPA's readability requirement and CEQA. The RDEIR/SDEIS repeats and compounds these problems. The RDEIR/RDEIS contains a confusing mix of new, old and partially edited impact sections; lack of clear and concise summary tables; omission of blocks of text from the revised impact chapters (without any strikeout to inform the reader which sections were deleted from the prior draft); failure to integrate figures into text; reliance on multiple appendices and appendices and exhibits to appendices; and cross references to old (DEIR/DEIS and BDCP) and new (RDEIR/SDEIS) documents. The foregoing all force the reader to juggle and page through multiple lengthy documents to attempt to piece together all the information the RDEIR/SDEIS contends supports its impact assessments and determinations. As but one example noted by County of Sacramento staff, the RDEIR/SDEIS states: "Appendix A does not include Draft EIR/EIS text that was not changed or that may be modified in the Final EIR/EIS in a non-substantive manner, and is focused primarily on impact analysis revisions to Alternative 4, though other BDCP alternatives are addressed for some of the resources for various reasons." (Executive Summary, p. ES-11, lines 37-40.) However, substantive sections were removed from Appendix A, Chapter 18 Cultural Resources, particularly sections 18.1.1.1-18.1.1.3; 18.2.1.1-18.2.1.2; and 18.3.5.1-18.3.5.8. Re-issuing a misleading and incomplete document precluded meaningful review and comment, particularly because the document relied heavily on the impact analysis of the original DEIR/DEIS.	The RDEIR/SDEIS fulfills two different but related roles: It describes and analyzes three new alternatives (Alternatives 4A, 2D, and 5A) and it provides revisions to the Draft EIR/EIS and BDCP that were released in 2013. Because the Lead Agencies wished to avoid unnecessarily reproducing lengthy portions of the Draft EIR/EIS and BDCP, the RDEIR/SDEIS contains cross-references to the earlier documents. These cross references are clearly labeled to guide reviewers to the appropriate document. In addition, the Lead Agencies provided a "Document Review Road Map" at the beginning of the RDEIR/SDEIS. Chapter 1, Section 1.3, of the RDEIR/SDEIS describes the contents of the document and provides references to the locations where readers may find specific discussions and analyses. In addition, Table 1-2 in the RDEIR/SDSEIS identifies the exact portions of the Draft EIR/EIS that are modified in the RDEIR/SDEIS. The Final EIR/EIS is a complete document without reference to earlier documents. See Master Response 38 for further discussion of document organization.
2511	9	The County of Sacramento is not the only entity to identify significant problems with the readability and presentation of information in the RDEIR/SDEIS. The Delta Independent Science Board (ISB), which is comprised of 10 PhD experts in the areas of hydrodynamics and fisheries biology, found the RDEIR/SDEIS "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists and the broader public." (September 30, 2015 correspondence to R. Fiorini et al from Delta Independent Science Board Re. Review of environmental documents for California WaterFix ("2015 ISB Report", attached as Exhibit A, at p. 1.) The ISB cited "overarching weaknesses" in the	The Federal and State Lead Agencies have done their best to make the EIR/EIS for the BDCP as fair, objective, and complete as possible. The Lead Agencies are following the appropriate legal process and are complying with CEQA and NEPA in preparing the EIR/EIS for the proposed project. These agencies readily acknowledge, however, that the document addresses a number of topics for which some scientific uncertainty exists. Such uncertainty can give rise to differing opinions as to what conclusions may be reached. Regarding the length and complexity of the document, please see Master Response 38.

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		RDEIR/SDEIS including, but not limited to, "overall incompleteness through deferral of content to the Final EIR/EIS ... ; specific incompleteness in treatment of adaptive management, habitat restoration, levees and long-term effects; and inadequacies in presentation." (Id. at p. 4). As a result of these overwhelming structural, organizational and content flaws, the ISB concluded that the RDEIR/SDEIS "fails to adequately inform weighty decisions about public policy." (Id.) The County agrees. A draft EIR must be recirculated when it is "so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (CEQA Guidelines, [Section] 15088.5(a)(4).) An EIR that is a "mass of flaws" must be redone completely and recirculated. (San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 741-742.) The RDEIR/SDEIS is a mass of flaws. Only if the significant flaws in the CalWaterFix Fix Project are addressed and the Project EIR completely rewritten and recirculated for public review and comment will the County, and the rest of the public, be able to understand the true impacts of the Project -- and in turn, provide detailed, consequential comments to help inform the Project and EIR/EIS.	Also see Master Response 40, Public Outreach Adequacy. For a discussion on Recirculation/Scoping, please see Master Response 46. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.
2511	10	The RDEIR/SDEIS Fails to Summarize or Resolve Disagreements Among Technical and Scientific Experts Regarding its Underlying Data and Methodologies. The CEQA Guidelines specify that when experts disagree about an EIR's data or methodology, the EIR should summarize the main points of disagreement. (CEQA Guidelines, [Section] 15151.) When the EIR's discussion and analysis is not modified to incorporate the suggestions made in comments on the draft document, the EIR must acknowledge the conflict in opinions and explain why they have been rejected, supporting its statements with relevant data. (Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Commissioners (2001) 91 Cal.App.4th 1344, 1367, 1371.) An EIR that fails to explain major discrepancies in critical data and fails to resolve the conflict with substantial evidence is legally inadequate. (Preserve Wild Santee v. City of Santee (2012) 210 Cal.App.4th 260.) Likewise, CEQ Guidelines state that "[a]ccurate scientific analysis" is essential to implementing NEPA. (40 C.F.R. [Section]1500.1(b).) Agencies must ensure the scientific integrity of analyses in environmental impact statements. (40 C.F.R. [Section]1502.24.) In doing so they must discuss any responsible opposing view and indicate the agency's response to the issued raised. An EIS "must respond explicitly and directly to conflicting views in order to satisfy NEPA's procedural requirements." (Earth Island Institute v. Carlton (9th Cir. 2010) 626 F.3d 462, 472.) Here, qualified experts (including, but not limited to, the Delta ISB, MBK Engineers, Dave Vogel and Robert Latour) provided detailed comments constituting substantial evidence that showed why and how the DEIR/DEIS's hydrologic modeling and fisheries analyses were flawed and inadequate to support the DEIR/DEIS's analysis, impact determinations, public participation or agency decision making. These expert comments raised issues of such significance regarding the fundamental assumptions, data and methodology used in the DEIR/DEIS as to merit discussion in a revised and recirculated Draft EIR/EIS. The RDEIR/SDEIS does not address these fundamental expert criticisms of the DEIR/DEIS. By deferring any discussion of these issues to the Final EIR/EIS, the lead agencies have effectively precluded informed public participation on some of the most important aspects of the environmental review documents. Post hoc peer review of foundational scientific and technical methodology and data does not allow evaluation of alternatives, examine or validate the data of the analysis, nor generate new analysis or assessment. Preventing peer	Responses to comments submitted by David Vogel and Robert Latour can be found in letter BDCP 1601,please refer to the index of Responses to locate the letter and corresponding responses The Delta Plan is currently the subject of litigation which has arisen since the issuance of the 2015 RDEIR/SDEIR and which could affect the legal requirements and/or implementation of the Delta Plan. For more information concerning compliance with the Delta Reform Act, please refer to Master Response 31, Appendix 3I of the 2013 Public Draft BDCP EIR/EIS and Appendix 3J of the Final EIR/EIS. Chapters 5–30 each include a description of the methods for analysis describing the resource-specific approach methodology used to identify and assess the potential environmental impacts that may result from implementation of the BDCP alternatives. For those resource topics utilizing Bay Delta Conservation Plan Draft EIR/EIS 4-7 November 2013 ICF 00674.11 Approach to the Environmental Analysis Bay Delta Conservation Plan Draft EIR/EIS 4-8 November 2013 ICF 00674.11 modeling output, a brief overview of the modeling tools and outputs is provided in Section 4.3, Overview of Tools, Analytical Methods, and Applications. In choosing the models used in this EIR/EIS, the Lead Agencies selected widely accepted and frequently utilized tools which provide reliable outputs regarding the environmental effects of the proposed action alternatives and the extent to which future conditions would differ as between various alternatives. Please also refer to Master Response 30 regarding the adequacy of the models used in the analysis. Other commenters regarding the methods for analysis are found letters BDCP 1448 and RECRIC 2546 to which responses can be reviewed by locating the letter in the index to this Chapter.

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		review as part of the EIR/EIS development process will push decisions on scientific merit to judges instead of scientists, and does not comport with the use of "best available science" as contemplated by the Delta Reform Act and required for Endangered Species Act consultation. Given the magnitude of the criticisms levied at the DEIR/DEIS data and methodologies, and the fact that the same errors appear to have been repeated in the RDEIR/SDEIS, it was an abuse of discretion for the lead agencies to fail to directly address the key expert criticisms in the RDEIR/SDEIS so the public and decision makers could understand and weigh the agencies' views and supporting evidence in their evaluation of the RDEIR/SDEIS.	
2511	11	Fundamental Flaws in the Technical Analyses Supporting the RDEIR/SDEIS Fatally Undermine Its Conclusions. The County of Sacramento and others, including the Delta Independent Science Board, commented previously on the numerous errors and omissions in the BDCP and DEIR/DEIS's modeling of Bay Delta hydrology. The RDEIR/SDEIS fails to correct these problems, as demonstrated by the expert report prepared by MBK Engineers and submitted on behalf of the North State Water Alliance (NSWA), of which the County is a member. The County also commented on the DEIR/DEIS's failure to adequately analyze Project impacts to endangered and threatened Sacramento River fish. Expert reports evaluating the RDEIR/SDEIS submitted on behalf of the NSWA demonstrate that the same questions and concerns about the impacts of the previously preferred project apply to the new alternatives, including Alternative 4A.	Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts (using the best available science and modeling), direct and cumulative, that project description is complete and satisfies the requirements of NEPA, and that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies believe that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. Discussion of the main environmental attributes affecting individual covered species is provided in Appendix 2.A of the 2013 Public Draft EIR/EIS. Effects of the proposed water conveyance and associated restoration activities on general resource areas are discussed in Ch. 4 of the RDEIR/SDEIS. Resource areas are addressed separately under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, public health, and others. Where impacts are determined to be significant, environmental commitments will be implemented to avoid and/or offset these effects, where possible. The Cumulative Impact Analyses that was written for the 2013 Public Draft EIR/EIS has been revised to include the impacts associated with the new proposed project alternatives and also updates past analyses. Environmental Commitments are to minimize effects to the Delta and its inhabitants and mitigate for loss of habitat to the ecosystem and its species. For more information please see Section 5 Revisions to Cumulative Impact Analyses, Appendix A Chapter 11 Fish and Aquatic Resources, Appendix A Chapter 12 Terrestrial Biological Resources, and Appendix 3B Environmental Commitments, AMMs, and CMs of the RDEIR/SDEIS. Please refer to the index of commenters to find comments and their responses submitted by the NSWA and MBK Engineers. Please also see Master Response 30.
2511	12	CEQA requires that an EIR analysis and impact determinations be based on substantial evidence. CEQA "[c]ase law defines 'substantial evidence' supporting an agency's decision as ' "relevant evidence that a reasonable mind might accept as adequate support for a conclusion" ' [citation] or 'evidence of " 'ponderable legal significance ... reasonable in nature, credible, and of solid value' " ' [citation]." (Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego (2006) 139 Cal.App.4th 249, 26, fn. 10.) NEPA likewise requires a record of sufficiently detailed information to fully assess significant environmental impacts so as to allow determinations by informed, reasoned choice. "Accurate scientific evidence remains essential to an Environmental Impact Statement ... [and] an agency [can] not rely on 'stale' scientific evidence or 'ignore reputable scientific criticism' in its Environmental Impact Statement." (City of Carmel-By-The-Sea v. U.S. Dept. of	This comment is a general opinion that the RDEIR/SDEIS does not meet the requirement for substantial evidence supporting the environmental analysis. As no specific analysis flaw has been identified no detailed response to this comment is possible. The RDEIR/SDEIS presents substantial evidence supporting effects of construction and operating the alternatives at an equal level of detail for all of the resources topics using GIS analyses for physical conveyance facility direct and indirect effects, water resources modeling to support effects influenced by hydrodynamic changes from project operations, and air quality and greenhouse gas emissions modeling. Please refer to Chapter 4, Approach to the Environmental Analysis in this Final EIR/EIS for an overview of the analysis approach used to provide substantial evidence supporting environmental analyses.

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		Transp. (9th Cir. 1997) 123 F.3d 1142, 1151, quoting Seattle Audubon Soc. v. Espy (9th Cir. 1993) 998 F.2d 699). The technical analyses supporting the RDEIR/SDEIS do not meet this standard; their flaws are so substantial as to invalidate the RDEIR/SDEIS analysis and impact determinations upon which they are based.	
2511	13	The EIR is Inadequate to Support Responsible Agency Decision Making. The numerous flaws with the DEIR/DEIS and RDEIR/SDEIS, including but not limited to the lack of essential information about the Project's effects on upstream and Delta water supplies and impacts to threatened and endangered fish species, render the document inadequate to meet the needs of the state responsible agencies and federal agencies with permitting jurisdiction over the Project. For example, as a CEQA responsible agency the State Water Resources Control Board (SWRCB) must rely on the Project EIR when considering the required water rights changes necessary to implement the Project. The DEIR/RDEIR/DEIS/SDEIS cannot support the SWRCB's required findings for petitions to change because there is insufficient evidence to conclude the Project will not injure other legal users of water. The specific bases for this concern have been stated previously in the July 2014 comments of Sacramento County and the North State Water Alliance, among many others. With respect to the current RDEIR/SDIES, for example, to the extent the new preferred project (Alternative 4A) includes provisions for additional Delta outflow, the effect of that component on upstream hydrology, and the ability of upstream water users to exercise their water rights, has not been evaluated. Similarly, substantial flaws in the analysis of impacts to threatened and endangered fish species fail to satisfy the informational requirements necessary to support issuance of a Clean Water Act section 404 permit for the proposed diversion structures. For these reasons the DEIR/RDEIR provides no substantial evidence to support a finding the Project will not injure other legal users of water and is inadequate to support the subsequent approvals required to implement the Project.	The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts, direct and cumulative, that project description is complete and satisfies the requirements of NEPA, that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies agree that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. Additionally, whether the environmental documents are sufficient to provide the information necessary for responsible agencies to make their subsequent permitting decisions is within the purview of those permitting agencies. (See Cal. Code Regs., tit. 14, § 15096.) Chapters 5-8 of 2013 Draft EIR/EIS provide information regarding the potential impacts of the action alternatives on water supply, surface water, groundwater and water quality. Potential impacts to endangered fish species are discussed in Chapter 11 of the 2013 Draft EIR/EIS. These same resources are evaluated for the sub-alternatives 4A, 2D and 5A in the 2015 RDEIR/SDEIS in Section 4. Please see Master Response 31 for a discussion of the SWRCB flow criteria. The SWRCB's flow criteria recommendations and how they were used to inform the planning process are discussed in detail in the 2013 Draft EIR/EIS Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure I, and in Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act. The 2013 Draft EIR/EIS recognizes water rights in the Delta watershed and the Delta and delivers water to those water rights holders to the extent water is available to the SWP and CVP based upon hydrologic conditions. Water rights flows are provided the highest priority in the CALSIM II model assumptions. Water is not delivered to SWP and CVP water contractors in the monthly-based CALSIM II model until water rights flows and regulatory flows (including environmental flow and diversion requirements) are met. However, the CALSIM II monthly model does not fully represent real-time operational conditions because the model only calculates and reports SWP and CVP water operations at an average monthly basis, the model cannot simulate changes that occur on a weekly basis by water users and SWP and CVP operations. In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. For more information regarding permitting please see Master Response 45.
2511	14	The Project is Inconsistent with the Delta Plan. The Project is a "covered action" under the Delta Plan and must demonstrate consistency with each applicable regulatory policy of the Plan. Where full consistency with all relevant regulatory policies is not feasible, a project proponent must clearly identify areas where consistency is not feasible, explain why it is not feasible and explain how the covered action nevertheless, on the whole, is consistent with the coequal goals. The County of Sacramento lacks the resources to do a complete analysis of the Project's consistency with every relevant policy of the Delta Plan at this time. However, even a cursory review (along with the public comments on BDCP and CalWaterFix CEQA and NEPA documents) demonstrates that the Project is inconsistent with numerous key Delta Plan policies, and the coequal goals, and thus a finding of consistency cannot be made.	The Delta Plan is currently the subject of litigation which has arisen since the issuance of the 2015 RDEIR/SDEIR and which could affect the legal requirements and/or implementation of the Delta Plan. Please refer to Master Response 31, Appendix 3I of the 2013 Public Draft BDCP EIR/EIS and Appendix 3J of the Final EIR/EIS. No issues related to the adequacy of the environmental impact analysis in the CEQA and NEPA documents were raised.

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2511	15	The BDCP/CalWaterFix Fix Project, DEIR/DEIS and RDEIR/SDEIS Fail to Document Use of the Best Available Science. Delta Plan Policy G P1, Detailed Findings to Establish Consistency with the Delta Plan requires that all covered actions "document use of best available science." (2013 Delta Plan, p. 53.) The 2015 Independent Science Board (ISB) Report along with the ISB's May 2014 review of the DEIR/DEIS are highly critical of the data and methodologies supporting the Project and its environmental studies. The ISB's detailed comments lament the RDEIR/SDEIS's "missing content," including key information about adaptive management an collaborative science, how levee failures would affect operation of dual conveyance systems, the effect of climate change on expected water exports from the Delta and system operations, and effects of changes in operations of the State Water Project and Central Valley Project or other changes in water availability, on agricultural practices in the San Joaquin Valley. (See 2015 ISB Report at p. 4 et seq.) The 2015 ISB Report is substantial evidence of the RDEIR/RDEIS's failure to document the use of best available science. Additionally, the expert reports of MBK Engineers, Dave Vogel, Robert Latour and others who commented on the DEIR/DEIS and/or the RDEIR/RDEIS provide additional substantial evidence to demonstrate that the Project and its environmental review documents do not document the use of best available science. In this critical respect the CalWaterFix and its EIR/EIS are inconsistent with both the language and intent of the Delta Reform Act and Delta Plan.	As stated above, please refer to Chapter 4 for information on the methods for analysis. Also refer to Chapter 5-30 for a description of the methods for analysis used for each resources area topic. The methods and models used in this EIR/EIS are widely accepted and frequently utilized tools which provide reliable outputs regarding the environmental effects of the proposed action alternatives and the extent to which future conditions would differ as between 6 various alternatives. For more information regarding adaptive management please see Master Response 33. Please refer to comment letters 1448 and 2546 to see responses to the Delta Independent Science Board's comments. Please refer to the index of commenters to review responses to comments submitted by other entities on the 2013 Draft EIR/EIS and the 2015 RDEIR/SDEIS. See response 2511-14 regarding the project's compliance with the Delta Reform Act. Please also see Master Response 30.
2511	16	The Project Fails to Properly Define Adaptive Management. Delta Plan Policy G P1 requires that water management covered actions include adequate provisions appropriate to the scope of the covered action, to assure continued implementation of adaptive management. This requirement shall be satisfied through both of the following: (A) An adaptive management plan that describes the approach to be taken consistent with the adaptive management framework in Appendix 1B, and (B) Document of access to adequate resources and delineated authority by the entity responsible for the implementation of the proposed adaptive management process. (2013 Delta Plan, p. 53.) An essential element of an adequate adaptive management process as defined in Appendix 1B of the Delta Plan is the establishment of concrete performance measures against which impacts and mitigation, and the success of the adaptive management process itself, can be measured. (See, e.g., Appendix 1B, pp. 1B-3-1B4.) The RDEIR/SDEIS, like the DEIR/DEIS before it, relies heavily on vague and undefined "adaptive management" processes to quantify and mitigate the Project's many significant environmental impacts. The lack of specified thresholds for action was criticized by the State Water Resources Control Board (SWRCB) in its July 29, 2014 comments on the BDCP and DEIR/DEIS [Footnote 1: See July 29, 2014 letter to Ryan Wulff by Diane Riddle, Environmental Program Manager, SWRCB re. Comments on BDCP, Draft BDCP EIR/EIS and BDCP Implementing Agreement.], and this error has not been corrected in the revised Project or RDEIR/SDEIS. The Delta Independent Science Board (ISB), too, was highly critical of the RDEIR/SDEIS's treatment of adaptive management. (See 2015 ISB Report at pp. 5-6.) The ISB was unable to "find examples of how adaptive management would be applied to assessing--and finding ways to reduce--the environmental impacts of project construction and operations." (Id. at p. 5.) The ISB found the project proponents' continued deferral of development of information about adaptive management to project construction and operations to be inexcusable. Specifically, the ISB opined that "if adaptive management and monitoring are	See response 2511-15. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.

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		central to California WaterFix, then details of how they will be done and resourced should be developed at the outset (now) so they can be better reviewed, improved and integrated into related Delta activities." (Id. at p. 5.) The ISB concluded: The protracted development of the BDCP and its successors has provided ample time for an adaptive management plan to be fleshed out. The [RDEIR/SDEIS] does little more than promise that collaborations will occur and that adaptive management will be implemented. This level of assurance contrasts with the central role of adaptive management in the Delta Plan and with the need to manage adaptively as climate continues to change and new contingencies arise. (Id. at p. 6.) The Project's lack of a scientifically and legally adequate adaptive management process is inconsistent with Delta Plan Policy GP 1.	
2511	17	The Project Increases, Rather than Reduces Reliance on the Delta as a Water Source. Delta Plan Policy WP P1. Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance, provides, among other things, that "water shall not be exported from, transferred through, or used in the Delta if: ... (3) The export, transfer or use would have a significant adverse environmental impact in the Delta." (Delta Plan, 2013, pp. 102-203.) The Project not only increases reliance on the Delta, through the expenditure of massive amounts of public funds and construction of permanent facilities dedicated to increasing the frequency and reliability of Delta diversions, but it also will result in numerous significant unavoidable permanent environmental impacts. Moreover, given the scale of known adverse effects (and not even accounting for the many unevaluated and likely substantial adverse effects), including but not limited to impacts to fish and water quality, there is no credible basis for finding that the Project furthers the coequal goal of "protecting, restoring, and enhancing the Delta ecosystem." In this way the Project is inconsistent with Delta Plan Policy PF P2.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights or reduction in total water rights issued to DWR and Reclamation. Please refer to Master Response 31 related to consistency of the Proposed Project with the Delta Reform Act and the current Delta Plan policies.
2511	18	The Project Fails to Respect Local Land Use. Delta Plan Policy DP P2. Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitat, requires that water management facilities respect local land use and be sited to avoid or reduce conflicts with existing uses or those uses described or depicted in city and county general plans. (2013 Delta Plan, p. 194.) As described in detail in the County of Sacramento's July 28, 2014 comments on the DEIR/DEIS, the proposed diversion facilities and associated infrastructure fail to respect local land use and will conflict with and irreparably damage the existing Delta communities of Hood, Clarksburg and Courtland by permanently altering the physical landscape, including agricultural and cultural/historic uses, substantially degrading its unique scenic qualities and cultural/historical and economic values in perpetuity. In this way the Project is fundamentally inconsistent with Delta Plan Policy DP P2.	Please refer to Master Response 11 regarding local plans. The preferred alternative, 4A, was designed and chosen specifically to limit significant impacts and to increase water supply reliability. For example, by moving the pumping plants to Clifton Court Forebay, Alternative 4A, the new preferred alternative, would result in less impacts to the communities of Hood, Clarksburg, and Courtland, than the previous preferred alternative, 4. Please refer to Appendix 3J, Alternative 4A (Proposed Project) Compliance with the 2009 Delta Reform Act, for a discussion of CA WaterFix and Delta Plan compliance. For more information regarding impacts to agriculture, socioeconomics, land use, and cultural resources please see Chapters 13, 14, 16, and 18, respectively.
2511	19	The Project Fails to Protect Beneficial Uses of Water. Delta Plan Policy WQ R1. Protect Beneficial Uses, provides that water quality in the Delta be "maintained at a level that supports, enhances and protects beneficial uses identified in the applicable State Water Resources Control Board or regional water quality control board water quality control plans." (2013 Delta Plan, p. 230.) The Project will have significant adverse effects to Delta water quality, including salinity, that threaten beneficial uses	More than two-thirds of the residents of the state and more than two million acres of highly productive farm land receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the lead agencies have no authority to designate what water is used for. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This

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		identified in the applicable water quality control plans, including agricultural irrigation water, fisheries and drinking water for Delta communities. By degrading Delta water quality to levels that threaten existing beneficial uses, the Project is inconsistent with Delta Plan Policy WQ R1.	charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project's Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances. For additional information regarding beneficial use of water, please see Master Response 34. See response 2511-14 regarding compliance with the Delta Plan and Master Response 14 regarding the proposed project's impacts to water quality.
2511	20	As an overarching comment, County of Sacramento staff found the RDEIR/SDEIS tediously lengthy, confusing, unorganized, and lacking in appropriate data and analysis, which made it extremely difficult to provide thoughtful and meaningful comments on the document. CEQA requires that an EIR "be organized and written in a manner that will be meaningful and useful to decision makers and the public." (Pub. Resources Code, [Section] 21003(b).) Likewise, NEPA requires an EIS be "concise, clear, and to the point", with a "clear format", "which will encourage good analysis and clear presentation of the alternatives". (40 C.F.R. [Section] 1502.1, Id. [Section] 1500.4(e), and Id. [Section] 1502.10, respectively). The RDEIR/SDEIS, like the prior DEIR/DEIS, does not fulfill this requirement. Incomplete analysis of impacts: The County is unable to effectively determine impacts to our residents and resources when the analysis is incomplete. County staff identified numerous instances where analysis of key issues was incomplete or entirely deferred.	As they did with the Draft EIR/EIS, the Lead Agencies balanced readability with thoroughness in describing and analyzing the new alternatives in the RDEIR/SDEIS. To assist reviewers, the Lead Agencies provided a "Document Review Road Map" at the beginning of the RDEIR/SDEIS. Chapter 1, Section 1.3, of the RDEIR/SDEIS describes the contents of the document and provides references to the locations where readers may find specific discussions and analyses. In addition, Table 1-2 in the RDEIR/SDSEIS identifies the exact portions of the Draft EIR/EIS that are modified in the RDEIR/SDEIS. See Master Response 38 for further discussion of document organization.
2511	21	Confusing terminology and mistakes in references: The original BDCP alternatives still include the BDCP component; however, the new alternatives 4A, 2D and 5A (analyzed in RDEIR/SDEIS Section 4) do not include the BDCP as a part of the project and (for the most part) should not include references to the "BDCP". Numerous references to the BDCP throughout Section 4 added to the confusion over which BDCP project elements were being retained in the new CalWaterFix project.	The RDEIR/SDEIS fulfills two different but related roles: It describes and analyzes three new alternatives (Alternatives 4A, 2D, and 5A) and it provides revisions to the Draft EIR/EIS and BDCP that were released in 2013. Because the entire Draft EIR/EIS and BDCP were not presented a second time and because the Lead Agencies wished to avoid unnecessarily reproducing lengthy portions of the Draft EIR/EIS and BDCP, the RDEIR/SDEIS contains cross-references to the earlier documents. These cross references are clearly labeled to guide reviewers to the appropriate document. See Master Response 38 for further discussion of document organization. Furthermore, because Alternative 4A is a sub alternative to the BDCP (Alternative 4) it is logical to reference the BDCP and related analysis as a reference point for understanding the differences between Alternative 4 and Alternative 4A.
2511	22	Missing sections and removed text: In some of the chapters within Appendix A there are missing sections as well as removed text and tables. These omissions prevented Sacramento County staff from understanding the full analysis or commenting meaningfully on impacts to the County. The omission of blocks of text without explanation made the document confusing and difficult to review, obfuscating project impacts and failing to fulfill the RDEIR/SDEIS's essential purpose as an informational document.	Because the Lead Agencies wished to avoid unnecessarily reproducing lengthy portions of the Draft EIR/EIS and associated Draft BDCP, the RDEIR/SDEIS contains cross-references to the earlier documents. These cross references are clearly labeled to guide reviewers to the appropriate document. In addition, Chapter 1 of the RDEIR/SDEIS explains the contents of the document, and Table 1-2 identifies the exact portions of the Draft EIR/EIS that are modified in the RDEIR/SDEIS. See Master Response 38 for further discussion of document organization.
2511	23	Deferred mitigation: The County of Sacramento identified numerous instances in which mitigation is incomplete or deferred. As with incomplete analysis, the County is unable to effectively determine whether impacts to our residents and resources are mitigated	Addressing some mitigation more programmatically is appropriate when the specifics of certain impacts cannot reasonably be determined because, for example, they are dependent on future actions. Please also see Master Response 2 for a discussion of the project vs. program level analysis in the EIR/EIS and why this is

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		adequately when the mitigation is not clearly defined or quantified.	adequate and allowed under CEQA and NEPA.
2511	24	Revised Chapter 3: Description of Alternatives. Reusable Tunnel Material: According to revised Chapter 3 (p. 3-43), as much as 31 million cubic yards of soil/material will be excavated to make way for the proposed twin tunnels. Excavated material will be placed/stored on sites scattered along the proposed alignment. Storage sites (characterized as "temporary" but actually in use for many years) will range between 100 acres to 1,100 acres in size; a total of 1,600 acres will be used for excavated material storage. Much of the Delta is located within a FEMA special hazard area. The placement of huge volumes of material in the floodplain (even on a temporary basis) has the potential to significantly impact drainage conveyance and floodplain storage at critical locations in the Delta. For example, the placement of such a large volume of fill could block historical overland release paths and displace areas of floodplain storage, resulting in significant property damage and loses. The RDEIR/SDEIS does not analyze or describe appropriate mitigation for potentially significant drainage-related impacts. The placement of fill requires a detailed evaluation of potential impacts to the floodplain and its base flood elevation (BFE).	The placement of storage locations for Reusable Tunnel Material (RTM) in a manner to avoid or minimize effects on drainage and other infrastructure is addressed in Appendix 3B and Chapter 14. Mitigation measures have been identified in the EIR/EIS to reduce the impacts to drainage and other agricultural infrastructure, including Mitigation Measures GW-1 and GW-5. These mitigation measures will reduce the severity of significant impacts in agricultural areas by implementing activities such as siting project footprints to avoid drainage infrastructure and areas of the parcels where water accumulates during wet weather periods, siting of project footprints to encourage continued agricultural production; monitoring seepage effects; and relocating or replacing agricultural infrastructure in support of continued agricultural activities. Please refer to Appendix 6A regarding flood and seismic risk.
2511	25	New Chapter 4: New Alternatives 4A, 2D, 5A. With the elimination of the ecosystem and habitat restoration elements of the BDCP, the project no longer meets the definition of a "program" but rather is just one very large water intake and delivery project. Because impacts are limited to construction and operation of the facility, impacts related to water conveyance, including new alternatives 4A, 2D, 5A, can and should be analyzed on a project-level basis.	Alternatives 4A, 2D and 5A are analyzed at a project-level basis, whereas the BDCP alternatives are analyzed at a mixed project and program level of detail. This EIR/EIS is intended to provide CEQA and NEPA support for approval of any of the BDCP alternatives or non-HCP alternatives, and to inform permit decisions for the issuance of related permits.
2511	26	Traffic: Section 4.3.15 (pages 4.3.15-1 through 4.3.15-14): Since it appears the new alternatives will have impacts similar, if not identical, to those previously analyzed, the County of Sacramento's July 28, 2014 comments are still applicable for each new alternative.	You are correct in stating that impacts of the new alternatives are similar to the old alternatives. Please see our responses to your previous comments.
2511	27	Water Supply: It is the County of Sacramento's understanding that the CalWaterFix technical group has yet to complete a comprehensive update to the water quality/flow model. Without this data it is not possible to determine whether any of the new alternatives would modify water deliveries to non-State Water Project (SWP) and non-Central Valley Project (CVP) water rights holders, including in-Delta water rights holders. It appears the current water supply impact analysis is focused solely on the Department of Water Resources, U.S. Bureau of Reclamation, SWP water users and CVP water service contractors, as opposed to "other water rights holders." It is critical that the RDEIR/SDEIS include a holistic water supply impact analysis and, as needed, include a list of actions that mitigate any adverse impacts for all water rights holders.	Under the alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. Please also refer to Master Response 32 regarding water rights issues.
2511	28	Biological Resources: Comment: The size, overall disorganization, and incompleteness of the recirculated	Please see Master Response 4 regarding the range of alternatives selected. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives

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		document preclude the public from conducting meaningful review and consideration of the environmental consequences of the proposed actions. Recommendation: The alternatives analysis should include a complete project description, determination of impacts, and associated mitigation for each new alternative without referencing multiple different drafts, appendices, and revisions for explanation. The public should be able to understand and consider the details and environmental consequences of each alternative independently.	and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the Draft EIR/EIS.
2511	29	Biological Resources: Comment: Removing the BDCP from the project description necessitates substantial changes to the type and extent of impact analysis and mitigation, and warrants completion of an entirely new document. Impacts to biological resources related to the WaterFix project are not clearly identified on a project level. Impacts are analyzed on a programmatic level and analysis is deferred to the "project planning phase" of future "projects." Mitigation is also deferred to future "projects." Examples: "AMM13 - During the project planning phase, identify suitable habitat within 1.3 miles of the project footprint, ash (sic) survey aquatic habitats in potential work areas for California tiger salamander. If California tiger salamander larvae or eggs are found, implement prescribed mitigation." (RDEIR/SDEIS Appendix 3B (Environmental Commitments) of Appendix A, p. 3B-79.) AMM12 - "Vernal Pool Crustaceans includes provisions to require project design to minimize indirect effects on modeled habitat, avoid effects on core recovery areas, minimize ground-disturbing activities or alterations to hydrology, conduct protocol-level surveys, and redesign projects to ensure that no suitable habitat exists within these areas." AMM10 - "Measures will be incorporated into restoration and monitoring plans..." Recommendation: Impacts related to the WaterFix project should be analyzed at the project-level. Project level impacts and associated compensatory mitigation should be clearly identified, or the document should be considered programmatic.	The BDCP and all the BDCP alternatives continue to be analyzed in full in the Final EIR/EIS. The RDEIR/SDEIS and the Final EIR/EIS introduce three non-HCP alternatives as well, of which the new proposed project, Alternative 4A, is one of them. This Final EIR/EIS describes and analyzes Environmental Commitments 3, 4, 6–12, 15, and 16 at a level of detail consistent with that applied to these activities under the BDCP alternatives (Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, and 9) as Conservation Measures. (See CEQA Guidelines Section 15126.4[a][1][D] [EIRs must discuss significant effects of mitigation measures, "but in less detail than the significant effects of the project as proposed"]; see also California Native Plant Society v. City of Rancho Cordova (2009) 172 Cal.App.4th 603, 621-625 [lead agency did not violate CEQA by failing to identify the off-site location at which mitigation for impacts to on-site wetlands would be carried out].) Specific locations for implementing many of the activities associated with these commitments have not been identified at this time. Therefore, the analyses consider typical construction, operation, and maintenance activities that would be undertaken for implementation of the habitat restoration and enhancement and stressor reduction efforts. Where appropriate and necessary, implementation of individual projects associated with an Environmental Commitment would be subject to additional environmental review. (See CEQA Guidelines Sections 15162–15164; 40 C.F.R. Section 1502.9[c].) Impacts of mitigation measures and environmental commitments are presented in Section 31.5 of Chapter 31, Other CEQA/NEPA Required Sections.
2511	30	Biological Resources: Comment: The analysis fails to clearly define the project and extent required mitigation. Thresholds of significance and performance standards for mitigation of significant impacts are not identified or defined. In addition, the method for developing the acreages associated with the "Environmental Commitments" listed in Table 4.1-3 is not identified. Example: RDEIR/SDEIS, Section 4 (New Alternative: Alternatives 4A, 2D, and 5A), page 4.1-1 line 27: "The originally proposed BDCP habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as parts of Alternatives 4A, 2D, and 5A, except to the extent required to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b)." (emphasis added) Recommendation: This discussion lacks meaningful information about the degree of habitat restoration that will be included. The statement "to the extent required to mitigate significant environmental effects" associated with the WaterFix project does not constitute	The commenter states that the analysis fails to clearly define the project and extent of required mitigation. The commenter further states that the thresholds of significance and performance standards for mitigation of significant impacts are not identified or defined and the method for developing the acreages associated with the "Environmental Commitments" listed in Table 4.1-3 is not identified. Language to explain how the proposed protection and restoration acreages were generated has been added to Chapter 3 of the EIR/EIS in Section 3.3.2.2 Non-HCP Alternative Environmental Commitments. In summary, this new language states that the acreages for the Environmental Commitments under the non-HCP alternatives were developed by taking into consideration the analysis conducted in Appendix 12D, Feasibility Assessment of Conservation Measures Offsetting Water Conveyance Facilities Construction Impacts on Terrestrial Biological Resources for the BDCP alternatives, which used typical mitigation ratios to determine the sufficiency of the BDCP conservation strategy as CEQA and NEPA mitigation (i.e., whether the BDCP conservation strategy includes sufficient land acquisition and restoration to adequately mitigate the impacts of CM1 for purposes of CEQA and NEPA). The first step involved applying these mitigation ratios to the water conveyance facility impacts on natural communities to obtain the restoration and protection acreages necessary to offset these impacts. Once these initial natural community restoration and

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		an identifiable performance standard against which impacts can be measured and should be defined. Impacts and associated compensatory mitigation should be clearly identified for each alternative, and it should be made clear at what ratio the impacts are being mitigated.	protection acreages were obtained, they were then compared to the mitigation requirements for species addressed in the EIR/EIS that use these natural communities as habitat. Several of the species analyzed in the EIR/EIS utilize the same general natural communities but may only use specific subsets of these natural communities or are geographically restricted to certain portions of the study area where these natural communities occur. Therefore, the total acreages of proposed natural community restoration and protection increased to account for species needs. Where restoration is anticipated to result in additional impacts on natural communities and species habitats, the restoration and protection acreages were increased further. Through an iterative process, final acreages for natural community protection and restoration were arrived at when it was determined by project biologists that proposed restoration and protection was sufficient to offset the loss or conversion of natural communities and species habitats from water conveyance construction and proposed restoration activities. Regarding the comment on thresholds of significance, Chapter 12 of the EIR/EIS discusses thresholds of significance in Section 12.3.1.1 Development of Significance Criteria and Section 12.3.1.2 Significance Criteria for Terrestrial Biological Resources. In Section 12.3.1.2, the general criteria listed in the previous section were tailored to assess effects on terrestrial natural communities and species. Regarding performance standards, the proposed restoration and protection actions are identified as Environmental Commitments and are treated as part of the proposed project and are guided by the original BDCP Conservation Measures. Section 3.6.3 Environmental Commitments of the EIR/EIS notes in the discussions of each Environmental Commitment that they would be "implemented in the same way as described in Conservation Measure …." (insert relevant Conservation Measure #). The Conservation Measures include performance standards for their implementation (see Section 3.4 of the Draft BDCP), which would also be applicable to the Environmental Commitments.
2511	31	Biological Resources: Comment: The RDEIR/SDEIS states in several locations that "The originally proposed BDCP habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as parts of Alternatives 4A, 2D, and 5A." However, throughout Section 4 (New Alternatives) of the recirculated document the reader is referred to "Conservation Measures" included in the previously circulated draft. In addition, the "Limited elements of the previously proposed Conservation Measures" that will be used to mitigate for significant environmental effects are not defined. The removal of the BDCP from the project description results in substantial changes to the type and extent of impact analysis and mitigation and warrants completion of an entirely new document. Vague cross-references do not clearly or adequately describe the new proposed project, its impacts or mitigation and generally create an inference that a broader set of the elements of the originally proposed CMs are still associated with the WaterFix. Examples: RDEIR/SDEIS, Executive Summary, page ES-13 states: "Because Alternatives 4A, 2D, and 5A do not include components of a HCP/NCCP, these alternatives do not include Conservation Measures (which are specifically required under Section 10 of the Federal ESA). Rather, limited elements of the previously proposed Conservation Measures are included as "Environmental Commitments" under Alternative 4A to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and CESA Section 2081(b). To aid reviewers, the Environmental Commitments are numbered to parallel the BDCP (Alternative 4) Conservation Measures...." RDEIR/SDEIS, Section 4 (New Alternative: Alternatives 4A, 2D, and 5A), page 4.1-16 line 1: "This action would consist of the acquisition of lands for protection and restoration of listed	The commenter offers an opinion that certain but unspecified conservation measures could be more clearly described and referenced in the EIR/EIS but does not raise a specific issue related to the adequacy of the EIR/EIS. As described in Appendix 3B, the intention of identifying environmental commitments, conservation measures and other best practices in the manner it has been done in the EIR/EIS was to assure the reader that the Lead Agencies will not subsequently determine that such measures are infeasible and in fact assume full responsibility for their enforcement.

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		species habitat in perpetuity and would be implemented in the same way as described in Conservation Measure 3 in the Draft BDCP but over less area..." Recommendation: The "Limited elements of the previously proposed Conservation Measures" that will be used to mitigate for significant environmental effects need to be clearly defined and accurately referenced throughout the document. The new alternatives, which do not include elements of a conservation plan, should not reference the previously circulated Draft BDCP or associated conservation elements.	
2511	32	Energy: The analysis of energy (Chapters 4.3.17, 4.4.17, and 4.5.17 and Appendix A Chapter 21, Pages 21-1 - 21-15) does not include clear sources for energy estimates, which is vital to the methodology of the analysis. Also, it is worth noting that DEIR/DEIS Table 21-12, which provided energy use estimates, has been removed from the RDEIR/SDEIS, although it is referenced in the analyses of Alternatives 4A, 2D, and 5A in Chapter 4, Sections 4.3.17, 4.4.17, and 4.5.17 of the RDEIR/SDEIS. In addition, operational energy impacts are only provided for Alternative 4. The remaining alternatives only include analyses of construction impacts. Furthermore, the cumulative analysis is insufficient as it does not actually address cumulative impacts at all, and it only addresses construction impacts.	The energy analysis for the original BDCP alternatives was provided in the DEIR/EIS Table 21-12. The Final EIR/EIS provides all of the information for comparison in Table 21-13. Alternative 4A would require less energy for delta conveyance than most of the original BDCP alternatives.
2511	33	Energy: RDEIR/SDEIS, Chapter 4, Section 4.3.17, page 4.3.17-1, lines 5-8 state that Construction Best Management Practices (BMPs) would ensure that only high-efficiency equipment is used during construction and refers the reader to Appendix 3B, Environmental Commitments, Section 3B.5.3, in Appendix A for those BMPs. The RDEIR/SDEIS asserts the referenced BMPs would ensure that construction activities for Alternative 4A would not result in an adverse effect on energy resources. First, the cross-reference to the construction BMPs is inaccurate, as Section 3B.5.3 actually refers to Environmental Commitment CM6 Channel Margin Enhancement, which is not relevant to the analysis of energy use. This type of incorrect cross referencing on key issues such as identification of mitigation measures occur throughout the document in the analyses of several alternatives and make it difficult for the reader to accurately assess whether the document actually considers ways to ensure that each alternative would not result in the wasteful use of energy.	The commenter is correct about the incorrect reference. The Construction Equipment Exhaust Reduction Plan is described in section The draft and Final EIR/EIS, Appendix 3B Section 2.9 of the Environmental Commitments.
2511	34	Energy: The Construction Best Management Practices (BMPs) (BMPs 7-15) contained in Appendix 3B of Appendix A (in Section 3B2.10.2) include standard construction measures such as encouraging carpooling and alternative transportation to job sites for construction workers, keeping construction equipment maintained, using Energy Star equipment, and ensuring that equipment in construction offices is turned off at the end of the work day. While all of these measures do provide energy savings, those savings are never quantified or analyzed. Further, for a project of this scale with the potential for statewide impacts, it is reasonable to expect that more could be done to ensure that project construction does not result in wasteful energy use than the implementation of simple, standard BMPs that include the use of Energy Star appliances and turning off lights at job site offices. These measures alone do not assure the reader that construction of any of the alternatives would not result in the wasteful or inefficient use of energy for large-scale construction activities. Further, the analysis provides an estimate for construction energy use, the source of which is unclear,	The use of fuel-efficient and low-emission equipment is the best way to achieve energy efficient construction. While the amount of earthmoving and electrical consumption during construction depends on the alternative, all construction for the selected alternative will employ these energy-efficient measures.

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		but it does not compare the estimate to a threshold that could be used to determine the significance of the impact. What would constitute excessive or inefficient energy usage? The RDEIR/SDEIS contains no standards against which to compare the estimated impact or assess its significance.	
2511	35	Energy: Inadequate analysis occurs on pages 4.4.17-1 for the analysis of Alternative 2D and 4.5.17-1 for the analysis of Alternative 5A. RDEIR/SDEIS, Chapter 4, Section 4.3.17, page 4.3.17-1, lines 18-20 direct the reader to Table 21-12 in Appendix A of the RDEIR/SDEIS for the operational energy use expected under Alternative 4 Operational Scenarios H3 and H4, estimated at between 150 to 170 gigawatt hours (GWh) per year. However, there is no Table 12-21 in the Appendix A, and Impact ENG-2 for Alternative 4 states different energy usage amounts (161 GWh/year for Scenario H1 and 140 GWh/year for Scenario H4). The Alternative 4 Impact Summary does not reference Scenario H3, at all, despite the cross-reference in the RDEIR/SDEIS. Impact ENG-2 under Alternative 4 also refers the reader to Table 21-12, which, as stated above, is not included in the document. Furthermore, the RDEIR/SDEIS includes no discussion of methodology or references to studies describing the energy usage analysis or how energy usage was estimated.	See response to 2511-32. The energy use methodology was described in the DEIR/DEIS and is described in the FEIS/FEIR Chapter 21 and additional details in Appendix 3B and 3C.
2511	36	Energy: The analysis on RDEIR/SDEIS page 4.3.17-1 goes on to say that energy use under Alternative 4A would be slightly higher than estimated for Alternative 4, but operation of the water conveyance facility would be managed to maximize efficient energy use, so there would be no adverse effect. The analysis does not estimate how much higher the estimated energy usage would be under Alternative 4A, nor does it provide any details to demonstrate how water conveyance facilities would be managed to maximize efficient energy use. By failing to provide meaningful data or analysis of this issue, the RDEIR/SDEIS's cursory treatment of energy impacts is inadequate and does not provide any evidence to support its determination that operations would not result in wasteful or inefficient use of energy. The same inadequate analysis also occurs on page 4.4.17-1 for the analysis of Alternative 2D and page 4.5.17-1 for the analysis of Alternative 5A.	See response to 2511-32 and 35 above. The energy used each year will change with the north Delta diversions; the small difference in energy use between Alternative 4A and Alternative 4 was because the CALSIM II results showed slightly higher north Delta diversions.
2511	37	Revised Chapter 6: Surface Water. The County's July 28, 2014 comments on DEIR/DEIS Chapter 6 still apply, and apply to the new alternatives presented in the RDEIR/SDEIS, based on the fact that no revisions in this chapter indicate any changes were made that would address these original comments.	Responses to comments on the Draft EIR/EIS are included in this Final EIR/EIS and specific letters can be located in this Chapter's index listing comment letters.. The responses to Sacramento County's comments related to Chapter 6 of the Draft EIR/EIS also apply to the Surface Water analysis in the Final EIR/EIS.
2511	38	Comment: Chapter 7 describes existing groundwater conditions in the Delta Region, the Suisun Marsh, the region Upstream of the Delta, and the SWP/CVP Export Service Areas. Further, this chapter includes a discussion of the environmental consequences (Section 7.3) associated with potential changes resulting from the construction of the Project's water conveyance component and related facilities in the Delta Region, as well as other indirect effects on groundwater resources stemming from the long-term operations and existence of these facilities and restored areas, under the various identified alternatives. There will be more than 1,500 exploratory borings and monitoring wells (including piezometers) being constructed as part of the geotechnical study for the proposed tunnels, many of them in Sacramento County. As a result, the following comments are applicable to	The text referred to in this comment related to "Conservation Measures (CM) 2 -21" in GW-6 and GW-7 has been modified in the Final EIR/EIS. A list of proposed design standards is provided in Appendix 3B, Environmental Commitments. However, this list is not intended to be exhaustive. Water Code Division 1, Chapter 2.5, Articles 2 and 3; and Division 7, Chapter 10, Articles 1 through 4 and Health and Safety Code, Division 104, Part 9.5 will also be considered but since the list is not intended to be exhaustive, no changes have been made to Appendix 3B. As described in Section 3.B.2 of Appendix 3B of the Final EIR/EIS, DWR will follow all appropriate local

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		the RDEIR/SDEIS's discussion of wells, including all associated appendices: Comment: The RDEIR/SDEIS continues to include mitigation that references "implementation of Conservation Measures (CM) 2-21" (e.g., Impact GW-6 and GW-7). Given the CalWaterFix is no longer defined as habitat conservation plan, referencing past BDCP-related CMs is very confusing. Any references to mitigation applicable to Alternatives 4A, 2D and 5A should clearly link to the retitled and applicable "environmental commitments" as defined in the RDEIR/SDEIS. Comment: The RDEIR/SDEIS does not identify or adequately describe the local agency permitting process, construction standards, and site inspection requirements for all associated wells (excluding temporary dewatering wells or exploratory borings not within 10 feet of groundwater). Further, a description of relevant county ordinances is completely absent from the discussion (Chapter 6.28 (Wells)). Comment: Re. the Geotechnical Exploration Plan: DWR and/or the U.S. Bureau of Reclamation (as applicable) should provide local agencies, including the Sacramento County Environmental Management Department, with copies of groundwater contour maps based on the findings of the plan.	agency requirements and obtain related permits or approvals. Many of the plans, such as the Geotechnical Exploration Plan, will be developed and finalized during the design phase and provided to the local agencies for review as appropriate.
2511	39	Revised Chapter 13: Land Use. Unfortunately, the State does not have to comply with the County's local regulations and thresholds of significance. However, the lead agency's failure to fully comply with local land use regulations and improvement standards is substantial evidence that the CalWaterFix water conveyance project will result in significant and unavoidable land use impacts and therefore require appropriate mitigation. As described in the RDEIR/SDEIS, under Alternative 4A, individual pumping plants at the three intake locations will not be included, thereby eliminating the need for three (3) 46,000-square- foot buildings (to house the pumping plants) and the permanent transmission lines, substations, and surge towers. Elimination of these infrastructure/facility features reduces some of the visual intrusion/impact issues presented by the original preferred project. However, the massive and intrusive project footprint remains essentially unchanged. As a result, the land use issues and concerns cited in the County's July 28, 2014 comments still apply based on the fact that no revisions in this section showed any changes were made that would address these original comments.	It is true that state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water are not subject to local land use regulations. However, inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment (as described in Section 13.3.1). This EIR/EIS, in assessing whether particular categories of environmental effects are adverse (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact. As discussed in Section 13.3.2, Determination of Effects, to the extent that alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters. Please see Master Response 11. The preferred alternative, Alternative 4A, has been carefully designed and selected to offer the most benefits with the least impacts. For more information regarding land use impacts and its associated mitigation measures please see Chapter 13 of the FEIR/EIS.
2511	40	Revised Chapter 14: Agricultural Resources. As described in our July 28, 2014 comments on the DEIR/DEIS, protection of existing agricultural resources and operations and promoting long-term agricultural sustainability in the Delta are especially important issues for Sacramento County. Thus the County was deeply disappointed that none of its original comments on the DEIR/DEIS was addressed in the RDEIR/SDEIS. Because no changes were made that address the County's previous comments, the same comments apply to the RDEIR/SDEIS, including our objection that it is inaccurate to characterize the Project's decade-long significant impact to agriculture as "temporary." Subjecting farmers, who make their living from the affected agriculture, to a decade of significant and unavoidable impacts will bring the primary economic driver in the Delta to a grinding halt. The proposed mitigation measures included in the RDEIR/SDEIS fail to adequately address the issue of lost agricultural production on prime farmland and	Please see Master Response 18 concerning agricultural impacts and mitigation of agricultural impacts, and Master Response 42 for a detailed response concerning public comments received on the DEIR/DEIS.

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		how/if farmers will be fairly compensated for lost revenues while the land is out of production.	
2511	41	The RDEIR/SDEIS states: "Appendix A does not include Draft EIR/EIS text that was not changed or that may be modified in the Final EIR/EIS in a non-substantive manner, and is focused primarily on impact analysis revisions to Alternative 4, though other BDCP alternatives are addressed for some of the resources for various reasons." (Executive Summary, ES-11, lines 37-40.) However, substantive sections were removed from Appendix A, Chapter 18 Cultural Resources, particularly sections 18.1.1.1-18.1.1.3; 18.2.1.1-18.2.1.2; and 18.3.5.1-18.3.5.8. Re-issuing an incomplete document precluded meaningful review and comment, particularly because the RDEIR/SDEIS relies heavily on the impact analysis of the original DEIR/DEIS.	The RDEIR/SDEIS provides a partial recirculation of Draft EIR/EIS material deemed necessary to address alternative and impact assessment changes. Sections not included in the RDEIR/SDEIS are unchanged or include only minor revisions that did not warrant including them in the recirculated document. This approach was taken to aid the reader in focusing on changes to the Draft EIR/EIS and to reduce the length of the document to facilitate public review.
2511	42	The RDEIR/SDEIS, Section 4, Cultural Resources 4.2-62, lines 23-25 states: "Land use changes within the Plan Area, including habitat restoration projects, could result in loss of these cultural resources, although to a lesser degree than under the No Action Alternative (LLT) because fewer acres would be disturbed." Alternative 4 and the new project alternatives, 4A, 2D, and 5A, do not analyze impacts at the project-level. The analysis is based solely on the footprint of the project area, but does not discuss the number, type or severity of impacts to cultural resources under one alternative versus another. Analysis has been conducted based on the size of the overall project footprint rather than on survey and analysis. The RDEIR/SDEIS thus fails to provide a meaningful evaluation of cultural resource impacts based on substantial evidence. Due to the changed nature of the project, there is no justification for the failure to evaluate impacts to cultural resources on a project-level basis using site-specific information. Without such information the County of Sacramento is unable to understand the scope and magnitude of potential significant effects to cultural resources.	The commenter's opinion related to the DEIR/S is acknowledged. This comment regarding Section 106 consultation was addressed in the Recirculated DEIR/S through the addition of Section 18.2.1.3, which provides information on Section 106 consultation and development of a Programmatic Agreement as part of a phased approach to identifying cultural resources. Sensitivity assessments also address impacts to unknown (or unevaluated) cultural resources. Table 18B-1 in Appendix 18B contains resources by alternative for easier comparison.
2511	43	RDEIR/SDEIS Appendix A, Chapter 18 Cultural Resources, 18-24, lines 23- 28 states: "The Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the U.S. Army Corps of Engineers are entering into a Programmatic Agreement with the California State Historic Preservation Officer for the implementation of National Historic Preservation Act Section 106 for their undertakings associated with the BDCP. The effects of Federal undertakings (actions) on historic properties (eligible for or listed on the National Register of Historic Places) will be taken into account through the implementation of this programmatic agreement." The RDEIR/SDEIS lacks an analysis of the effects of Federal undertakings on historic properties. The Project has not been evaluated at the programmatic level or at the project level. The RDEIR/SDEIS is deficient because analysis of cultural resource impacts has been deferred; instead, analysis is proposed as a mitigation measure. It is impossible to understand the impacts of the preferred project or select an environmentally superior alternative because the necessary evidence, analysis and determinations for all project alternatives have been impermissibly deferred.	See response 2511-42.
2511	44	The document inaccurately documents consultation efforts to date. The RDEIS/SDEIS states: "DWR sent letters to 23 potentially interested parties, including local historical societies, local ethnic history groups, and local agencies on March 11, 2015." (Chapter 18 Cultural Resources--Appendix A: p. 18-2, lines 13-15.) On Appendix A page 18-3, line 14 the RDEIR/SDEIS states, "No responses have been received to date." On June 4, 2015, Sacramento County received a request to participate in the Section 106 process for the BDCP. On June 23, 2015, the County requested to participate in the Section 106 process as	See response 2511-42.

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		an interested party. Under 36 CFR Part 800, Section 800.2(c)3, "a representative of a local government with jurisdiction over the area in which the effects of an undertaking may occur is entitled to participate as a consulting party." On July 16, 2015, DWR acknowledged receipt of the County's letter and indicated that the Corps had been notified of the County's interest in participating in the Section 106 consultation process and draft Programmatic Agreement. (See Exhibit B.)	
2511	45	The document fails to directly acknowledge that the Project will have disproportionate and adverse effects on the communities in the Delta, particularly the National Landmark District of Locke, and National Register Historic Districts in Walnut Grove. According to RDEIR/SDEIS Appendix A, Chapter 18 Cultural Resources, 18-17, lines 11-16: "Some of resources [sic] are considered historic properties for the purposes of this analysis because they meet the criteria in the National Register of Historic Places regulations (36 CFR 60.4), as described below. For the similar reasons [sic], some are considered historical resources under CEQA. As identified in Appendix 18B, Table 18B-9, a total of 10 built- environment resources have the potential to be directly or indirectly affected by construction of this alternative. Some of these resources have multiple contributing elements, as described in Appendix 18B. The specific nature and location of the impact mechanism for each affected resource is also described in Table 18-9." The impact discussion is inadequate and downplays Project impacts because it does not clearly identify the nature and extent of impacts under the proposed alternatives. Some of the resources that have "multiple contributing elements" are the historic districts in Walnut Grove and Locke, which are listed on the National Register of Historic Places and represent entire communities. As briefly noted in the RDEIR/SDEIS Section 4, Environmental Justice 4.3.24-4, "The impacts on cultural resources have the potential to disproportionately affect minority or low-income populations." The RDEIR/SDEIS acknowledges that cultural resource mitigation measures for the Project will not minimize effects to a less than significant level; effects will remain adverse. Therefore, effects on minority and low-income populations would remain disproportionate and adverse.	Cultural landscapes are discussed throughout Chapter 18, including Rural Historic Landscapes in the Delta (Section 18.1.7.8). Direct effects of these cultural landscapes are discussed in Section 18.3.2 and Mitigation Measure CUL-6 includes following the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR, part 68) and the National Park Service's Guidelines for the Treatment of Cultural Landscapes. Lastly, Mitigation Measure CUL-7 includes resource specific evaluation and treatment of resources as well as districts. Eligible and potentially-eligible built resources are discussed in Section 18, including Sections 18.2.2.1, and 18.3.3. Mitigation Measure CUL-5 specifies consultation and implementation of a Built Environment Treatment Plan (BETP). This BETP will specify property-specific protection, avoidance, and treatment as necessary. Mitigation Measure CUL-5 includes identification and evaluation of resources which were not accessed to date. The description of the cultural resources effect of Alternative 4A related to environmental justice populations is correct. For more information regarding significant and unavoidable impacts please see Master Response 10. For more information regarding impacts to socioeconomics and its associated mitigation measures please see Chapter 16 of the FEIR/EIS.
2511	46	The RDEIR/SDEIS relies on the Built Historical Resources Evaluation Report for the BDCP (September 2012). The Findings for that document (page 57) state: "Because there was no federal lead agency to fulfill the statutory requirements of Section 106 at the time of this survey and evaluation effort, the resulting determinations of eligibility and ineligibility have not been reviewed by the California State Historic Preservation Office (SHPO). Section 106 review will be performed for relevant federal actions that qualify as undertakings and that are necessary to implement the BDCP." A lead agency for the project has been identified, but the technical reports in support of the RDEIR/SDEIS have not been revised. The Built Historical Resources Evaluation Report for the BDCP (September 2012) does not contain determinations that have been vetted through the State Historic Preservation Office. SHPO's input is an important component of the information needed to support an adequate evaluation of cultural resource effects, and the failure to include this information in the RDEIR/SDEIS, which was prepared almost three years after the Built Historical Resources Evaluation Report was completed, deprived Sacramento County and the public of meaningful information that was important to evaluate the Project's effect on significant cultural resources.	The commenter's opinion related to the DEIR/S is acknowledged. This comment regarding Section 106 consultation was addressed in the Recirculated DEIR/S through the addition of Section 18.2.1.3, which provides information on Section 106 consultation and development of a and development of a Programmatic Agreement as part of a phased approach to identifying cultural resources. Further, eligible and potentially-eligible built resources are discussed in Section 18, including Sections 18.2.2.1, and 18.3.3. Mitigation Measure CUL-5 specifies consultation and implementation of a Built Environment Treatment Plan (BETP). This BETP will specify property-specific protect, avoidance, and treatment as necessary. Mitigation Measure CUL-5 includes identification and evaluation of resources which were not accessed to date.
2511	47	Revised Chapter 20: Public Services and Utilities. The County of Sacramento's July 28, 2014 comments on DEIR/DEIS Chapter 20 still apply,	Please refer to the DEIR/DEIS Public Comments for responses to the commenter's July 28, 2014 comments. The impacts discussed under Impact UT-2 relate to public services such as fire and police services.

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		and apply to the new alternatives presented in the RDEIR/SDEIS, based on the fact that no revisions in this chapter indicate any changes were made that would address these original comments. In addition, the County has the following comment on the RDEIR/SDEIS's evaluation of Alternative 4A: Comment: RDEIR/SDEIS section UT-2 (p. 4.3.16-2; 20-10) discusses Alternative 4A's disruption of public service utilities (also Section 4). The analysis looks at the effects of constructing two 9-foot diameter pipes 100-feet below the surface of Hood (also shown on Figure M12-4) and concludes under both CEQA and NEPA that there would be than significant effects, or no adverse effects, and therefore no mitigation is necessary. The determination is incorrect because it does not take into consideration Project effects on Hood's two main drinking water wells, one of which is located on 3rd street and the other on Hood Franklin Road. These 12-inch wells are within close vicinity of the proposed alignment of the 9-foot diameter pipes and are between 200 and 340 feet deep, penetrating the proposed construction depth. Because of the close vicinity of the wells and proposed pipe alignment, an analysis of construction and operation activities with regards to the aquifer stability and effects of the Hood wells is needed along with mitigation to address significant impacts associated with the wells' failure due to Project construction.	However, under Impact UT-6 the impacts to utility infrastructure are discussed. Relocation and disruption of existing utility infrastructure would be required under this alternative and would have the potential to create environmental effects, this effect would be adverse. However, Mitigation Measures UT-6a, UT-6b, and UT-6c are available to reduce the severity of this effect. If coordination with all appropriate utility providers and local agencies to integrate with other construction projects and minimize disturbance to communities were successful under Mitigation Measure UT-6b, the effect would not be adverse. Please see Chapter 20 for additional detail on these Mitigation Measures.
2511	48	Revised Chapter 22: Air Quality and Greenhouse Gases. Comment: The RDEIR/SDEIS fails to evaluate project-level air quality and greenhouse gas (GHG) emission-related impacts specific to Alternatives 2D and 5A but instead relies heavily on analogies and extrapolation from the original DEIR/DEIS. Incomplete analysis of the impacts of these new alternatives prohibits reviewers from adequately assessing impacts to their communities and from providing meaningful comments. For example, the RDEIR/SDEIS concludes that the air quality impacts of Alternative 2D would range from those calculated for Alternative 1A and Alternative 4. (RDEIR/SDEIS, Section 4 New Alternatives: Alternatives 4A, 2D, and 5A, page 4.4.18-1, lines 4-9.) Similarly, on page 4.5.18-1 lines 4-9, the conclusion is made that the air quality impacts of Alternative 5A would range from those of Alternative 4 and Alternative 5. Additional impact discussions throughout the rest of the Air Quality and Greenhouse Gases sections of Alternative 2D and 5A utilize this same technique of omitting alternative-specific evidence and analysis in favor of blending and cross-referencing the analysis prepared for the original DEIR/DEIS alternatives. While analysis has been focused on the preferred alternative (Alternative 4A), Sacramento County is concerned that additional project- level analysis should be completed in the event that either Alternative 2D or Alternative 5A were to move forward as the preferred alternative. Moreover, cross-referencing analysis and conclusions for different alternatives that was presented in a different draft EIR makes it inordinately difficult for the public to find and understand the impacts of the new alternatives that are the subject of the revised and recirculated EIR. Comment: (RDEIR/SDEIS, Appendix A, Chapter 22 Air Quality and Greenhouse Gases and Section 4 New Alternatives: Alternatives 4A, 2D, and 5A): While it is understood that the preparers of the document have made good faith efforts to coordinate with air districts and to quantify, to a certain extent, impacts and associated mitigation measures, it is still not clear whether the proposed project would allow Sacramento County to meet Federal General Conformity de minimis thresholds in the future (in particular, with regards to NOx and PM). Impacts (Impact AQ-20, pp 22-314 through 22-315) and mitigation (Mitigation Measure AQ-1a, pp. 22-289 through 22-291 and Mitigation Measure AQ-1b, p. 22-291	The Final EIR/EIS includes a quantitative assessment of construction- and operational-related criteria pollutant and greenhouse gas emissions generated by Alternatives 2D and 5A. As discussed in Chapter 22, Air Quality and Greenhouse Gases, and Appendix 22A, Air Quality Analysis Methods, emissions were estimated based on the revised analysis completed for Alternative 4, which incorporated the latest engineering and environmental commitment assumptions. Please refer to Section 22.3.4 for the impact analyses for Alternatives 2D and 5A. A summary of mass emissions impacts is also presented in Table 22-171. The results of the quantitative analysis are consistent with the comparative conclusions reached in the RDEIR/SDEIS. DWR is committed to working with the Sacramento Metropolitan Air Quality Management District (SMAQMD) and all other air districts in the Plan Area to reduce construction emissions and avoid adverse effects to regional and local air quality. As outlined under Mitigation Measure AQ-1 and discussed in Chapter 22, Air Quality and Greenhouse Gases, DWR proposes to mitigate air quality impacts in Sacramento County through contributions to SMAQMD's Heavy-Duty Low-Emission Vehicle Incentive Programs (HDLEVIP). Criteria pollutants in excess of the federal de minimis thresholds will be reduced to net zero (0). Criteria pollutants not in excess of the de minimis thresholds, but above SMAQMD CEQA thresholds will be reduced to quantities below the numeric thresholds. DWR would provide the funding necessary for SMAQMD to issue incentives for emission reduction projects that are not required by law to reduce their emissions, thereby offsetting the construction emissions and satisfying the basic criterion of additionally. Estimating emissions 15 years into the future carries some degree of uncertainty. While the emissions modeling was based on the latest technical modeling procedures and incorporates impacts from reasonably foreseeable air quality regulations, actual emissions levels when the project is constructed may differ from the estimates presented in Chapter 22. Recognizing this fact, the EIR/EIS emissions analysis utilized worst-case, conservative assumptions to characterize emissions impacts. Accordingly, there is a high degree of confidence that actual emissions levels and required offsets will be lower than what are presented in the EIR/EIS. As noted in Mitigation Measure AQ-1, the mitigation plan to offset emissions will include protocols for quantifying actual emissions and associated fees. Consultation with the air district was reinitiated in 2015, and SMAQMD issued a letter regarding future coordination that will occur with DWR to implement Mitigation Measure 1a in January 2015 (refer to

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		through 22-293) for the proposed Project would occur as far out into the future as 2029, at which point it becomes difficult to predict both mitigation feasibility and adequacy. In the event that the air quality impacts of the proposed Project prevent Sacramento County from meeting Federal General Conformity requirements in the future, Sacramento County's ability to receive Federal funding for infrastructure projects, such as bridges and roads, will be limited, and the resulting economic impact may contribute to significant impacts to local infrastructure by delaying or preventing necessary safety and circulation improvements. Comment: RDEIR/SDEIS, Appendix A, Chapter 22 Air Quality and Greenhouse Gases, page 22-97, lines 4-5: lines 4-5 of Mitigation Measure AQ-21 mistakenly refer to Mitigation Measure AQ-15 rather than AQ-21.	Appendix 22E, General Conformity Determination).
2511	49	Revised Chapter 23: Noise. The County of Sacramento's July 28, 2014 comments on DEIR/DEIS Chapter 23 still apply, and apply to the new alternatives presented in the RDEIR/SDEIS, based on the fact that no revisions in this chapter indicate any changes were made that would address the original comments. In addition, the County provides the following comments on the RDEIR/SDEIS. Comment: The noise-related impacts associated with the construction of Alternative 4 (outlined on p. 23-65) and Alternative 4A (assumed to be identical to Alternative 4) represent unacceptable impacts to the residents of the Delta Community within Sacramento County. Mitigation Measures NOI-1a and NOI-1b (p. 23-66) are not sufficient to adequately mitigate impacts, especially considering the fact that the construction of the proposed Project is anticipated to take years (intake construction alone is anticipated to take 3.5 to 4.5 years each according to Appendix 3C: Construction Assumptions). Such a lengthy construction period cannot appropriately be described as "temporary" or "short-term." Comment: RDEIR/SDEIS, Appendix A, Chapter 23 Noise, page 23-15, lines 4-10: The text states that if construction noise exceeds 50 dBA (interior), 70 dBA (exterior) or 5 dB above the ambient noise level, the contractor must implement mitigation until the noise is "reduced to a level of 50 dBA (70 dBA exterior) or 5 dB above ambient noise" (p. 23-15, lines 4-10). However, the significance threshold being used is an increase in ambient noise of "5 dB or more" (p. 23-12 lines 27-32). Thus in order to effectively reduce impacts below the significance threshold, the mitigation must be revised to provide that the contractor must implement mitigation until the increase in ambient noise is less than 5 dB. Please revise the Environmental Commitment accordingly. Comment: RDEIR/SDEIS, Section 4 New Alternatives: Alternatives 4A, 2D, and 5A, page 4.3.19-1: The CEQA impact conclusion references an increase in noise levels of 12 dB as a traffic noise threshold. However, the analysis in Appendix A, Chapter 3 utilizes Federal Highway Administration (FHWA) methodology to define a substantial increase as 5 dB. Text including the 12 dB increase in traffic noise as a threshold (from Caltrans Protocol) is depicted as redlined text that has been struck-through in Appendix A Chapter 23. The argument is being made that the construction-related noise impacts of Alternative 4A are identical to those of Alternative 4, so these two alternatives must be evaluated consistently with the same thresholds. Comment: RDEIR/SDEIS, Section 4 New Alternatives: Alternatives 4A, 2D, and 5A, page	The commenter's concern about the duration of the construction period is acknowledged. DWR and contractors hired to construct any conveyance components of the project will implement a site-specific noise abatement plan to avoid or reduce potential construction-, maintenance-, and operation-related noise impacts. This section also includes environmental commitments to reduce noise levels where exceedances are anticipated to occur. Among these measures is a commitment to limit pile driving to the hours of 7 a.m. to 7 p.m. Re 1st comment: Although construction for the entire project would occur over a period of years, in many areas along the conveyance construction would be intermittent and short-term, as components of the project are completed. Some features such as intakes would take a longer amount of time to build, but would still be a temporary effect, as the period of project construction accounts for phasing of all components of the project. In terms of noise, this will affect different areas at different times. Regarding the second comment: The text in the chapter is revised to read as follows: "In the event of complaints by affected residents due to on-site construction noise generated during nighttime hours, the contractor will monitor noise levels intermittently (between 10:00 p.m. and 7:00 a.m.) at the dwelling unit of the person lodging the complaint . If measured levels of construction noise during nighttime hours exceeds 50 dBA interior Lmax (70 dBA exterior Lmax) or 5 dB above ambient noise, whichever is greater, at the dwelling unit, the construction contractor will implement additional sound-attenuating mitigation measures where feasible, such as limitations on the use of noise-generating equipment, or installation of additional temporary barriers or enclosures. Where the above-described strategies are ineffective in reducing noise to the identified levels or where it is infeasible to do so, the affected residents may be offered short-term relocation assistance for the duration of the time that nighttime noise level are expected to exceed the specified levels. Exceptions to this commitment include legally-mandated warning devices such as back-up alarms and warning horns." This intent of this commitment is to address the potential for sleep disturbance during nighttime construction. Regarding the third comment: The traffic noise threshold has been revised in Section 23.3.2.1. An adverse impact under Future with Project conditions would occur at a residential location where the loudest-hour traffic noise level is predicted to be 60 dBA Leq or greater, and loudest-hour traffic noise is predicted to increase the ambient noise level at residential locations by 5 dB or more. All alternatives including Alternatives 4, 4A, 2D and 5A use these thresholds in the analysis of traffic noise in Chapter 23. Regarding the fourth comment: A detailed analysis of noise impacts under Alternatives 4A, 2D and 5A had been added to Section 23.3.4. Regarding the fifth comment: The traffic noise threshold has been revised in Section 23.3.2.1. An adverse impact under Future with Project conditions would occur at a residential location where the loudest-hour traffic noise level is predicted to be 60 dBA Leq or greater, and loudest-hour traffic noise is predicted to

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		4.4.19-1, lines 4-11: On page 4.4.19-1 lines 4-11, the conclusion is made that the impacts resulting from Alternative 2D would range from those calculated for Alternative 1A and Alternative 4. In addition, on page 4.5.19-1, rather than quantifying the noise- related impacts specific to Alternative 5A, the preparers conclude that the impacts would range from those calculated for Alternative 4 and Alternative 5. The RDEIR/SDEIS's failure to provide meaningful information about the noise impacts specific to these alternatives precluded the County from understanding the actual impacts of these alternatives and from making meaningful comments on the RDEIR/SDEIS. Comment: As discussed above, the NEPA Effects and CEQA Conclusion discussions for both Alternatives 2D and 5A include the outdated 12 dB traffic noise threshold again instead of using the 5 dB threshold consistent with FHWA methodology.	increase the ambient noise level at residential locations by 5 dB or more. All alternatives including Alternatives 4, 4A, 2D and 5A use these thresholds in the analysis of traffic noise in Chapter 23 of the Final EIR/EIS.
2511	50	RDEIR/SDEIS, Errata Sheet, Appendix 23A, Noise Contours: Noise contours are provided for the original alternatives but not for the new alternatives (Alternatives 4A, 2D, and 5A). Project noise effects in the established rural communities of Hood, Clarksburg and Courtland, as well as noise effects to recreationalists and wildlife, are a significant concern to the County and its residents. The failure to provide sufficient detail and analysis specific to the new alternatives prevents the Sacramento County from assessing impacts to its residents or natural resources. Please provide the requested noise contours.	Noise contours for Alternatives 4/4A, 2D and 5A have been added to Appendix 23A of the Final EIR/EIS.
2511	51	RDEIR/SDEIS, Appendix A, Chapter 23 Noise, page 23-7: On page 23-7 the document skips from Section 23.3.1.2 (Traffic Noise Modeling) to Section 23.3.1.4 (Operations). There is no longer a Section 23.3.1.3 and there is no track changes text to show what Section 23.3.1.3 was previously. This happens in several other locations (including between Section 23.3.3.4 and 23.3.3.9 and again between Section 23.3.3.9 and 23.3.3.16). It is unclear whether these omissions signify that the section was removed or whether no changes to this section were made to this section and the text of the original document is still applicable. This is one of several instances of missing sections and removed text. Missing or misnumbered sections are confusing and make the document difficult to review and impossible to apprehend the full scope of analysis and Project impacts.	The material in RDEIR/SDEIS Appendix A is the material that was revised after the issuance of the Draft EIR/EIS. Sections that were not revised from the Draft EIR/EIS, such as Chapter 23, Section 23.3.1.3, and Sections 23.3.3.5 through 23.3.3.8, were not included in the RDEIR/SDEIS because they were not modified. Section numbering for the RDEIR/SDEIS matched that of the Draft EIR/EIS so that readers could understand precisely where revisions were made. The Final EIR/EIS contains all chapters and sections.
2511	52	It is well established that "[T]he purpose of an EIR is not only to protect the environment but to demonstrate to the public that it is being protected. (County of Inyo v. Yorty (1973) 32 Cal.App.3d 795, 810.) As explained in the County of Sacramento's comments, the RDEIR/SDEIS, like the DEIR/DEIS before it, does not provide sufficient information, nor does it present information in a way that allows the public a meaningful opportunity to understand and comment on the CalWaterFix Project's substantial adverse impacts. To date, the DEIR/EIS and RDEIR/SDEIS have failed to demonstrate to the citizens of Sacramento County that they, and the unique Delta environment, will be protected from the significant impacts of constructing and operating the CalWaterFix Project. Due to the fundamental changes in the project since publication of the DEIR/DEIS, the significant changes needed to the underlying technical studies and analyses, and the extensive comment and criticism of these documents, further edits and revisions or partial recirculation of the current DEIR/DEIS or RDEIR/SDEIS will not satisfy CEQA and NEPA's informational mandate. The state and federal lead agencies must start over and prepare a new draft EIR/EIS that addresses the concerns raised in comments on the DEIR/DEIS and RDEIR/SDEIS.	The documentation generated by this proposed project has undergone extensive public and scientific input, discussion, and transparency, including the posting of administrative draft chapters online and providing many more opportunities for public participation than is normally required by the CEQA/NEPA processes (see Master Response 41 [Transparency]. Master Response 40 (Public Outreach) provides a summary of the public outreach activities that have been conducted since the planning process began in 2006. The lead agencies believe that the public outreach efforts summarized here more than adequately satisfy the public outreach goals requirements under state and federal laws and guidelines. The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. In fact, as a direct result of the extensive public comments and agency input, the water facility and conveyance options proposed as part of the project changed significantly during the planning process in ways that reduce impacts in the Delta communities. Additional unique Alternatives that were proposed during review of Administrative Drafts of the BDCP and EIR/EIS were also considered and described, See Appendix 3A of the EIR/EIS and Section 4 of the RDEIR/SDEIS. Socioeconomic effects of the alternatives are assessed in Chapter 16 of the DEIR/DEIS and RDEIR/SDEIS, as

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			well as Master Response 24 (Delta as a Place). Please refer to Master Response 4 (Alternatives) and Master Response 31 (Delta Reform Act) for additional information on how the proposed project is compliant with NEPA, CEQA, and the Delta Reform Act. For more information regarding Environmental Commitments please see Appendix 3B of the FEIR/EIS. For more information regarding Project versus Program level please see Master Response 2.
2511	53	[ATT1: Exhibit A: Delta Independent Science Board Report: Review of environmental documents for California WaterFix. Dated September 30, 2015.]	This comment describes an attachment to the comment letter. See letters BDCP 1448 and RECIRC 2546 that can be located in this Chapter's index to review specific comment responses related to the ISB comments.
2511	54	[ATT2: Exhibit B: Letter from DWR to Sacramento County, dated July 16, 2015. RE: Coordination with Historic Interest Groups and Local Agencies about Historic-Period Cultural Resources under Section 106 of the National Historic Preservation Act for the California Water Fix Project.]	This comment describes an attachment to the comment letter discussing the Section 106 consultation process. Section 106 consultation was addressed in the Recirculated DEIR/S through the addition of Section 18.2.1.3, which provides information on Section 106 consultation and development of a Programmatic Agreement as part of a phased approach to identifying cultural resources. The Section 106 process will be led by the U.S. Army Corps of Engineers.
2512	1	The City [of Brentwood] has reviewed the RDEIR/SDEIS and believes that it fails to comply with the requirements of the California Environmental Quality Act (CEQA). There [is a] chief flaw in the environmental document. Although the project to be analyzed has changed in substantial ways (e.g., the removal of 25,000 acres of tidal marsh habitat), the modeling that was used to drive the environmental analysis did not change. Consequently, the environmental analysis contained in the RDEIR/SDEIS pertains to a project that is no longer being proposed. The failure to analyze the actual project being proposed is an obvious and glaring violation of CEQA. This failure, moreover, infects each and every analysis of the potential environmental effects of the project by basing those impact analyses on erroneous hydrodynamic and water quality modeling.	The RDEIR/SDEIS presents revised modeling results and other analyses for all of the new alternatives (Alternatives 4A, 2D, 5A and No Action ELT). Results based on model sensitivity analyses that reflect the new alternative changes are presented in RDEIR/SDEIS Appendix B and Final EIR/EIS Appendix 11E. In addition, in preparing this Final EIR/EIS, the Lead Agencies conducted additional modeling runs that have verified and confirmed the analysis in the RDEIR/EIS of the new alternatives, including Alternative 4A (the proposed project). Please refer to Final EIR/EIS Appendix 5A, BDCP/California WaterFix EIR/EIS Modeling Technical Appendix, which presents results of CALSIM II and DSM2 modeling results for all of the EIR/EIS alternatives. Modeling results used to support the environmental analyses provide a reasonable estimate of the hydrodynamic changes for alternative conveyance facility operations and are used for a number of resource chapters in the EIR/EIS, including Chapter 5, Water Supply, Chapter 6, Surface Water, Chapter 7, Groundwater, Chapter 8, Water Quality and Chapter 11, Fish and Aquatic Resources. Please see Master Response 30 for additional clarification on modeling efforts. Notably, it is legally permissible to confirm conclusions found in a Draft EIR through new modeling conducted in connection with the preparation of a Final EIR. (San Francisco Baykeeper v. California State Lands Comm. (2015) 242 Cal.App.4th 202, 220, 223-224; see also Beverly Hills Unified School Dist. v. Los Angeles County Metropolitan Transportation Authority (2015) 241 Cal.App.4th 627, 643-651, 660-666.)
2512	2	In order to maintain flexibility for the future, the RDEIR/SDEIS does not provide any operational plans for the proposed project. In plain English, the environmental document does not describe how much water would be diverted from the proposed North Delta Diversion or how the Central Valley Project and the State Water Project would be managed so as to avoid adverse environmental effects in the Delta. Instead, the RDEIR/SDEIS makes general promises and assumptions that the project will be operated to avoid any adverse effects on the environment. This type of "smoke and mirrors" approach to CEQA is not legally adequate; the environmental document must make a good faith effort to analyze the potential effects of the proposed project on the environment. Without an operations plan, such an analysis is impossible. Because there is no such plan, the RDEIR/SDEIS fails to comply with CEQA. For these reasons, the RDEIR/SDEIS must be withdrawn, reworked and recirculated to address these fundamental deficiencies.	Each of the new sub-alternatives introduced in the RDEIR/SDEIS was accompanied by a detailed description of the proposed operations for that alternative. (See, e.g., RDEIR/SDEIS, pp. 4.1-5 – 4.1-14 [proposed operations for Alternative 4A].) The project description for each the sub-alternatives therefore provides sufficient detail to permit a sufficiently detailed analysis of its potential environmental impacts, as required under CEQA and NEPA. To the extent that such operations might be modified in the future based on Real Time Operations (RTO) or the Collaborative Science and Adaptive Management Program (CSAMP), such possibilities are fully consistent with the purposes of CEQA and NEPA. Even for far more conventional projects, environmental review is typically conducted before all of the details of a plan or project are finalized because complete engineering and design work is not required or necessary for impact assessment. (See Dry Creek Citizens Coalition v. County of Tulare (1999) 70 Cal.App.4th 20, 27-28 [a project description "should not supply extensive detail beyond that needed for evaluation and review of the environmental impact"] [quoting State CEQA Guidelines, § 15124[c]]; Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist. (2004) 116 Cal.App.4th 396, 400–401 [mitigation measures "need not specify precise details of design" "[h]aving recognized a significant environmental impact and having determined that mitigation measures may reduce the impact to insignificance, the [environmental document] may leave the details to engineers"].) Here, however, the very nature of the proposed project and alternatives makes it

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			impossible – and inadvisable – to attempt to identify proposed operations that would be absolutely locked in for the anticipated lifetime of the actions to be taken. Real time operations can and will avoid adverse outcomes that might be predicted by modeling due to the fact that even state-of-the art modeling is not precise enough to predict future outcomes with great precision. And although the CSAMP process will insert an element of uncertainty into the implementation of whatever alternative may be chosen after the completion of the EIR/EIS process, collaborative science and adaptive management are tools for reducing environmental impacts. It improves operations over time through lessons learned. Please see Master Response 2 for further information regarding the level of detail provided in the EIR/EIS Analysis and Master Response 3 for Purpose and Need. Operation and modeling assumptions can be found in Appendix 5A, details on project operations and real-time operations (RTO) can be found in Chapter 3, and changes in water supply (e.g. exports/diversions) and surface water can be found in Chapters 5 and 6, FEIR/EIS, respectively. These chapters include information on how much water will be diverted from the north Delta diversions (NDD) and the exiting south Delta export facilities under the various alternatives. Project operations include Fall X2 requirements and spring outflow criteria to minimize and avoid project impacts to Delta and longfin smelt, respectively. As noted above and explained in EIR/EIS Chapter 3, operations can be adjusted via processes included in the CSAMP process. In addition, specific RTO criteria are included in the proposed project to minimize and avoid impacts to listed fish species moving past the NDD. Further, the CSAMP will help inform and improve SWP/CVP operations to minimize effects to listed fish species. Please see EIR/EIS Chapter 3 for more information on the CSAMP. Section 3.3.2 of the Biological Assessment for CA WaterFix discusses a future operations plan that will be developed prior to the new facilities becoming operational. In addition, Master Response 28 presents operational criteria that would be part of the operational plans. The EIR/EIS fulfills the legal requirements of CEQA and NEPA and recirculation is not required.
2512	3	The City [of Brentwood] is carefully reviewing comments on the RDEIR/SDEIS submitted by other agencies and interested members of the public, including but not limited to the CCWD [Contra Costa Water District], the ECCID [East Contra Costa Irrigation District], City of Antioch, [and] Contra Costa County, and concurs with many of those comments and incorporates them by reference.	The commenter indicates that it concurs with many of the other comments raised by the referenced agencies. Responses have been provided to those other agencies as noted and identified in the Final EIR/EIS. Hence, this specific comment, in and of itself, does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2512	4	The City [of Brentwood] is committed to working with the State of California and water agencies across California to develop sensible, science-based solutions to the many problems that face the Delta. The project described in the RDEIR/SDEIS, however, does not meet that standard. We would welcome the opportunity for an open and frank dialogue about how we could work together to benefit our residents and the people of California.	Since 2006, the proposed project has been developed based on sound science, data gathered from various experts, input from agencies (including the commenter), stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. Should the California WaterFix, now the preferred alternative, be approved, an adaptive management and monitoring program will be implemented to develop additional scientific information during the course of project construction and operations to inform and improve conveyance facility operational limits and criteria. The structure of the collaborative science elements of the adaptive management and monitoring program is summarized on page ES-39, the Executive Summary of the RDEIR/SDEIS. As part of this structure, a memorandum of agreement (MOA) would be executed between a variety of stakeholders and regulatory agencies.
2512	5	The RDEIR/SDEIS is so badly organized, with references and cross-references pointing in a myriad of directions, that no member of the public can easily find -- let alone understand -- the environmental analysis contained in the RDEIR/SDEIS. Thus, the RDEIR/SDEIS fails to satisfy the most basic requirement of CEQA: to inform the public about the environmental consequences of a proposed governmental decision.	As no specific examples of RDEIR/SDEIS organizational deficiencies have been identified in this comment, no detailed response is possible. The commenter is directed to the Document Review Road Map in the RDEIR/SDEIS Executive Summary for an overview of the document organization. Additionally, please refer to Master Response No. 38 (Length of Environment Document), which details how and why the Lead Agencies created the Document Review Road Map and other referencing to aid the reviewer.
2512	6	The RDEIR/SDEIS fails to define the "project" that is to be analyzed. Without a project definition, the document represents a post hoc rationalization for a prior decision by the	The Lead Agencies respectfully disagree with the commenter that there is an ill-defined project scope for analysis in the EIR/EIS documentation. Alternative 4A, also known as California WaterFix, has been

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		CEQA Lead Agency, the California Department of Water Resources (the Department), to proceed with the activities in question. To the extent that the RDEIRISDEIS describes a "project" for analysis, that "project" fails to meet the requirements of CEQA in two fundamental ways. First, the project is impermissibly vague and ill-defined. CEQA does not allow a public agency to rely on general promises of "adaptive management" and thereby avoid the hard work to analyze the real effects on the physical environment of a proposed project. Second, to the extent that the project relies on the previous environmental analysis of the Bay Delta Conservation Plan (the BDCP), that project differed significantly from the California WaterFix project. The "sensitivity analysis" used by the RDEIR/SDEIS to justify reliance on the BDCP environmental document ignores these differences and so fails to comply with CEQA.	developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. Alternative 4 remains a potentially feasible alternative and was carried forward in the RDEIR/SDEIS and the Final EIR/EIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 Public Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. Additionally, refer to the responses to Comment Nos. 1 and 2 in this letter (LTR#2512). The alternatives presented in the RDEIR/SDEIS are described in detail in Section 3, Conveyance Facility Modifications to Alternative 4 and Section 4, New Alternatives: Alternatives 4A, 2D and 5A. These detailed alternatives descriptions are incorporated into Final EIR/EIS Chapter 3, Description of Alternatives. These descriptions and the GIS and modeling information prepared for them are adequate for the purposes of CEQA and NEPA project-level analyses. Please also refer to Master Responses 2 (Project Level versus Program Level) and 3 (Purpose and Need), as well as Comment No. 2 to this letter (LTR#2512). Adaptive management and monitoring commitments are described in sufficient detail to understand how adaptive management will be used to adjust future project operations, if needed. See also Master Response 33 (Adaptive Management and Monitoring).
2512	7	The heart of the environmental analysis contained in the RDEIR/SDEIS is its modeling of the hydrodynamic and water quality impacts of the proposed project on water quality in the Delta, such as at the City [of Brentwood]'s intake at the East Contra Costa Irrigation District canal. However, the modeling performed for the RDEIR/SDEIS continues to use an outdated version of the CALSIM model, uses an incorrect baseline that purports to represent "existing conditions," and -- most notably -- overstates Delta outflow while underestimating exports from the North Delta Diversion. All of these errors mean that the environmental analysis contained in the RDEIR/SDEIS dramatically underestimates the potential effects of the project on water quality for the City. In this way, the RDEIR/SDEIS fails to provide decision-makers with an accurate and reliable evaluation of the environmental impacts of the project and so fails to comply with CEQA. Because of the fundamental nature of these flaws, the City believes that the Department must -- again -- recirculate the environmental document so that the second recirculated document actually provides the public with an accurate evaluation of the potential environmental impacts of the proposed project. If the Department [DWR] is unwilling to recirculate the RDEIR/SDEIS, then the State Water Resources Control Board should reject the petition for change in point of diversion that was filed by the Department and the U.S. Bureau of Reclamation on August 26, 2015 on the grounds that the petitioners failed to provide the Board with an adequate environmental document.	Please refer to the response for Comment 2512-1 with regards to issues related to the modeling efforts, including Master Response 30 (Modeling). See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 (court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta); and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 (court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches). On the subject of baseline, please see Master Response 1 (Environmental Baselines). With regards to issues on Delta outflows and North Delta Diversion, please refer to the response for Comment No. 2 in this letter (LTR#2512). Additionally, for water quality impacts please see Master Response 14, Water Quality. The Lead Agencies do not agree that re-circulation is required. Please see Master Response 46 for the reasons behind not conducting another re-circulation of the environmental documentation. With regards to the actions that the State Water Resources Control Board shall take on the petition for change in point of diversion, this specific comment, in and of itself, does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2512	8	As a threshold matter, inspection of the California WaterFix website, on which the RDEIR/SDEIS is posted, indicates that the Department [DWR] sought to discourage public review and comments on the RDEIR/SDEIS. The RDEIR/SDEIS is poorly organized, requiring a reviewer to toggle back and forth among at least three different portions of the environmental document (the purported document, Appendix A, and various charts and figures) in order to review the document. It is notable -- by means of contrast -- that the	The Lead Agencies have not sought to discourage public review, and did their best to assist readers to navigate their way through the RDEIR/SDEIS. Please refer to the response for Comment 2512-5 . To assist reviewers, the Lead Agencies provided a "Document Review Road Map" at the beginning of the RDEIR/SDEIS. Chapter 1, Section 1.3, of the RDEIR/SDEIS describes the contents of the document and provides references to the locations where readers may find specific discussions and analyses. Table 1-2 in the RDEIR/SDSEIS identifies the exact portions of the Draft EIR/EIS that are modified in the RDEIR/SDEIS. The

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		BDCP DEIR/S, which was prepared by the same agencies, was extremely long and detailed but was organized in such a way that a member of the public could readily determine where in the document the discussion of a potential impact could be located. The same cannot be said of the RDEIR/SDEIS.	descriptions and impact analyses for these alternatives are presented in in Section 3 and Appendix A for Alternative 4 and in Section 4 for Alternatives 4A, 2D, 5A and No Action (ELT). Much of the physical conveyance facility analysis for Alternative 4A refers to Alternative 4 analyses because the conveyance facilities for these alternatives are identical. Impact analyses in Section 4 of the RDEIR/SDEIS for Alternatives 2D and 5A identify the difference in effects for these alternatives compared to Alternative 4 or 4A in many cases because the main differences between these alternatives are the number of North Delta intakes. All of the alternatives and the environmental analyses are also presented in resource chapters 5 -31 in this Final EIR/EIS. To avoid presenting thousands of pages of unchanged content, the Lead Agencies did not provide the entire Draft EIR/EIS within the RDEIR/SDEIS; therefore, the RDEIR/SDEIS contains cross-references to the earlier document. The Final EIR/EIS is a complete document without references to earlier documents.
2512	9	[The] lack of organization -- or perhaps intentional disorganization -- so impedes public review and comment of the RDEIR/SDEIS that it violates the provisions of CEQA. When information is scattered throughout the document in a haphazard way, as here, the true impacts of the project are obscured, and it is impossible for the Lead Agency (here, the Department of Water Resources) to fulfill the requirement for a good faith analysis. "Information scattered here and there in EIR appendices, or a report buried in an appendix, is not a substitute for a good faith reasoned analysis." California Oak Foundation v. City of Santa Clarita (2005) 133 Cal.App.4th 1219, 1239; see also Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2003) 106 Cal.App.4th 715,723-24 (Report on SWP water availability, which was "buried in an appendix" to the EIR, could not overcome [the] challenge that EIR had failed to properly analyze impact of SWP water availability on project). Although the original BDCP DEIR/S contained significant flaws (including many still unaddressed in this iteration of the environmental document) the current document suffers an even more fundamental problem: it is poorly organized, difficult to navigate, and relies almost entirely on lengthy appendices and internal cross-references to support its analysis. CEQA requires that data "be presented in a manner calculated to adequately inform the public and decision-makers, who may not be previously familiar with the details of the project." Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal. 4th 412, 442; City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438, 1454-55 ("[W]e do not prescribe the exact information or format the County must include in its EIR, but we expect it will attempt in good faith to fulfill its obligation under CEQA to provide sufficient meaningful inforn1ation.") This failing, by itself, requires the Department [DWR] to withdraw the environmental document, revise it so that it can be understood by members of the public, and then issue a second recirculated draft environmental document.	The Lead Agencies have prepared the EIR/EIS in a manner that complies with the standards set by CEQA (Section 15151 of the State CEQA Guidelines) and by NEPA (Section 1502.2 of the CEQ NEPA Regulations). From this joint environmental review process, decision makers at the state and federal level will have sufficient information to make an informed decision. As also stated in Section 15151 of the State CEQA Guidelines, disagreement among experts does not make an EIR inadequate. Overall, more than 600 public meetings, working group meetings and stakeholder briefings have been held during the preparation of the proposed project's environmental documents. During the more than seven years of collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations, the Lead Agencies have made every effort to revise the project and alternatives to reduce or avoid significant adverse impacts with mitigation. Hence, the commenters' view that the EIR/EIS is fundamentally flawed is unfounded. Refer to Master Response 41 (Transparency) for clarification. Please refer to the responses for Comments 2512-5 and 2512-8 that explains why the commenter's unsubstantiated accusation of bad faith (e.g., intentional disorganization to violate CEQA) is incorrect. None of the standards triggering recirculation under CEQA have occurred (refer to Section 15088.5 of the State CEQA Guidelines). The Lead Agencies have conducted the EIR/EIS analyses in a good faith effort, which has resulted in numerous detailed studies, complex modeling, and broad technical analyses, all of which is described in the EIR/EIS and has been posted online.
2512	10	A finite project description is the "sine qua non of an informative and legally sufficient EIR." County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193. The project description is vital to the CEQA process: without an accurate view of the project, public agencies and members of the public will be unable to weigh the purported benefits of the project against its environmental cost, to properly mitigate any adverse environmental impacts, and to identify suitable project alternatives. San Joaquin Raptor Center v. County of Merced 2007) 149 Cal.App.4th 645, 654. In contrast, a "curtailed, enigmatic or unstable project description draws a red herring across the path of public input." County of Inyo, 71 Cal.App.3d at 197-98. The RDEIR/SDEIS's Project Description lacks the information necessary for members	Although the commenter has accurately quoted from case law the general principle that a legally adequate Project Description is key to an adequate EIR, the Lead Agencies do not agree that the Project Description in the EIR/EIS is legally inadequate. Although the commenter's specific contentions of inadequacy are addressed in separate responses, it is worth noting that "[t]he description of the project … should not supply extensive detail beyond that needed for evaluation and review of the environmental impact[.]" (State CEQA Guidelines, § 15124.) "A general description of a project element can be provided earlier in the process than a detailed engineering plan and is more amenable to modification to reflect environmental concerns." (Dry Creek Citizens Coalition v. County of Tulare (1999) 70 Cal.App.4th 20, 28.) "The 'general description' requirement for the technical attributes of a project is consistent with the other CEQA mandates to make

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		of the public or the agency to evaluate the impacts of the project. This deficiency is significant, as "only through an accurate view of the project may the public and interested parties and public agencies balance the proposed project's benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal and properly weigh other alternatives." City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438, 1454. The RDEIR/SDEIS fails to meet these standards in several critical ways. First, the environmental document uses an incorrect baseline for its analysis, a baseline that causes the document (and hence the public) to underestimate the effects of the project on water quality in the Delta. Second, and related, the environmental document uses an incorrect timeframe to evaluate the effects of the project; by truncating the time period during which effects from a perpetual project might occur, the environmental document again understates those effects. Finally, and of most concern, the environmental document does not actually define how the federal Central Valley Project (the CVP) and the State Water Project (the SWP) might actually function if the project were to be approved. Particularly in the cases of the analysis of spring outflow and the quantity/timing of water diverted at the North Delta Diversion, these uncertainties thwart the goal of providing the public with an accurate and reliable evaluation of the environmental effects of the project. Consequently, the document fails to comply with the requirements of CEQA.	the EIR a user-friendly document." (Ibid.) "The EIR must achieve a balance between technical accuracy and public understanding." (Ibid.) Please refer to the response to Comment No. 2 in this letter (LTR#2512) CEQA Guidelines section 15124 provides: The description of the project shall contain the following information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact. (a) The precise location and boundaries of the proposed project shall be shown on a detailed map, preferably topographic. The location of the project shall also appear on a regional map. b) A statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project. (c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities. (d) A statement briefly describing the intended uses of the EIR. (1) This statement shall include, to the extent that the information is known to the Lead Agency, (A) A list of the agencies that are expected to use the EIR in their decision making, and (B) A list of permits and other approvals required to implement the project. (C) A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements. The commenter has not claimed that the descriptions of the various alternatives in the EIR/EIS fail to include these required items of information. Instead, the commenter identifies a series of very technical issues that were not explained to the commenter's satisfaction, and mixes legal arguments with its claims that certain technical information is lacking. In short, the commenter has failed to show any legal inadequacy in the Project Description. With respect to the comment on an incorrect baseline used for the overall technical analyses, please refer to Master Response 1 (Environmental Baselines) for further clarification. The commenter also stated that the environmental document uses an incorrect timeframe to evaluate the project; however, as no specific examples of such RDEIR/SDEIS deficiencies have been identified in this comment, no detailed response is possible. In general, construction of the proposed California WaterFix water conveyance facilities would be sequenced over approximately 10 years. Construction of individual components (e.g. intakes, tunnels) would range from one to six years. The construction-related impacts are disclosed in individual resource area chapters in the EIR/EIS and RDEIR/SDEIS, as are the operations and maintenance related impacts that would be expected over the life of the project. Finally, with regards how the CVP and SWP would function with project implementation, especially with water diverted at the North Delta Diversion, please refer to the following Master Responses: 5 (BDCP), 14 (Water Quality), 15 (NPDES Permit Holders), and 28 (Operational Criteria).
2512	11	The RDEIR/SDEIS used a baseline condition that does not include the Fall X2 flows currently mandated by the Biological Opinions that govern the operation of the CVP and the SWP. The	Please refer to Master Response 1 (Environmental Baselines) for a detailed response why the full implementation of the Fall X2 salinity standard (as originally described in the 2008 USFWS BiOp) is not

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		effect of that choice, as described by Exponent [ATT1], is to make "the baseline condition appear to be more saline than it actually is, so that the potential impacts of the BDCP [California WaterFix project] appear to be significantly smaller than they would be with an appropriate baseline."	included in the CEQA environmental baseline.
2512	12	The Exponent report [ATT1] describes, at page 3, that the RDEIR/SDEIS only performed a quantitative analysis of water quality effects of the project for the Early Long-Term timeframe (roughly through 2025) as contrasted to only performing a qualitative evaluation of the water quality effects of the project during the Late Long-Term timeframe (roughly through 2060). This is in marked contrast to the fact that the BDCP DEIR/S performed quantitative analysis of both timeframes. The rationale for only analyzing the Late Long-Term timeframe qualitatively is unclear, especially because the RDEIR/SDEIS acknowledges that the project "would continue indefinitely." In the absence of a quantitative analysis, which the BDCP Draft EIR/EIS showed would have adverse effects on the environment, the lack of analysis suggests that the RDEIR/SDEIS is trying to avoid acknowledging those adverse effects on the environment. See Gentry v. City of Murrieta (1995) 36 Cal.App.4th 1359, 1378-79 ("The agency [will] not be allowed to hide behind its own failure to gather relevant data . . . CEQA places the burden of environmental investigation on government rather than the public. If the . . . Agency has failed to study an area of possible environmental impact . . . [d]eficiencies in the record may actually enlarge the scope of fair argument be lending a logical plausibility to a wider range of inferences.") Of greater concern to the City [of Brentwood] and a further failure to meet the standards of CEQA is the fact that the modeling given to the City of Antioch from the Department [DWR] indicates that there will be long-term degradation of water quality in the western Delta due to the project. The analysis of water quality at the City of Antioch's intake is hereby incorporated herein by reference as if set forth in full. But, the fact that the RDEIR/SDEIS does not even acknowledge such impacts, let alone their significance or the possibility of mitigation, means that the analysis contained in the RDEIR/SDEIS is inadequate to comply with the requirements of CEQA.	The selected timeframes for EIR/EIS analyses are based on the permit period of the proposed project (California WaterFix) rather than on the BDCP (with an HCP and 50-year incidental take permit). For further explanations on water quality and modeling efforts, please see Master Responses 14 and 30, respectively. Modeling results for the No Action Alternative indicate that, with or without the project, rising sea levels will bring saline tidal water further into the Delta than occurs at present. Changes in surface water quality, including salinity, under each action alternative and the proposed project as compared to the No Action Alternative and Existing Conditions are discussed in Chapter 8, Water Quality, in the EIR/EIS. The assessment of the project alternatives in Chapter 8, Water Quality, shows that the preferred alternative 4A would have substantially less effect on Delta water quality such that significant impacts were only identified for electrical conductivity (EC) at Emmaton and Prisoners Point, and mercury associated with the limited tidal habitat restoration that would be implemented. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. As such, the effects analyses for the proposed California WaterFix project are based on the best available information. Additionally, the operational criteria, physical components of the project, and mitigation included in the proposed project are meant to reduce all environmental effects to the extent feasible. However, the tools and data available today are limited, and the Adaptive Management Plan will provide a mechanism for identifying uncertainties, implementing research actions to reduce those uncertainties, and make adjustments based on that new information. Additionally, during project implementation, additional information will be available as to the effects of the project, and adaptive management can be used to adjust the project to address these effects. Adaptive management can result in changes in operational criteria based on new information to avoid adverse effects. Please see Master Response No. 14 (Water Quality) for the response to the water quality analysis associated with the Contra Costa Water District and Antioch Intakes discussion. The Final EIR/EIS (Chapter 8, Water Quality) identifies applicable mitigation, environmental commitments, and avoidance minimization measures for significant water quality impacts. Due to the variability of the water quality conditions at various locations, both temporally and seasonally, within the Delta, adaptive management will be a critical tool to provide the necessary feedback and allow for corrective measures to be employed. Various strategies are discussed on the relevance and assistance of adaptive management in conjunction with altering project effects based on sound scientific practices and operational criteria (see Master Response 33). For additional information regarding the environmental baselines used in the EIR/EIS, please see Master Response 1 (Environmental Baselines).
2512	13	Perhaps the greatest failing in the environmental document is its utter failure to define how the CVP and SWP would be operated if the California WaterFix project were to be approved. Because these operations are critical to understanding the environmental effects of the project, their omission in the RDEIR/SDEIS fails to comply with CEQA. The Exponent report [ATT1] states the matter well: "No operational limits are provided in the RDEIR/SDEIS that would inform the City [of Brentwood] regarding how the project may be operated, and no additional model runs are provided that would indicate the water quality impacts that may result from modified operations. Thus the operational conditions as described for Alternative 4A [the preferred alternative] are essentially unconstrained, providing an undefined degree of flexibility that	With regards to analyzing the operations and effects of the CVP and SWP with project implementation, the EIR/EIS provides sufficient information for the analysis of potential environmental impacts and full disclosure to the decision makers and public. The Lead Agencies acknowledge that the document addresses a number of topics for which some scientific uncertainty exists. Such uncertainty can give rise to differing opinions as to what conclusions may be reached; however, the California WaterFix Project does not have unconstrained operations. Please see the response for Comment 2512-2 regarding operational criteria and constraints. In response to the assertion that the project description is undefined, please see the responses to Comments 2512-6 and 2512-10.

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		can be expected, based on model runs for Alternative 4 Operations Scenarios HI and H2 (which do not include Fall X2) to result in significant impacts to water quality at Brentwood's intake." In simple terms, it is impossible to understand the project's operations because spring outflows (one of the most important parameters of project operations) could vary between zero and 44,500 cfs [cubic feet per second]. With such a range of variation, literally "anything goes" and the project is essentially undefined.	
2512	14	To the extent that there is any flexibility in project operations, the RDEIR/SDEIS indicates that such flexibility is to be exercised only with an eye to benefiting fish species, not to preventing adverse effects on water quality at the City [of Brentwood]'s intake. As the Exponent report [ATT1] indicates at page 7, "[n]o mention is made of the importance of spring outflow and Fall X2 to water quality in the western Delta, and no indication is given that operations would be constrained to avoid a worsening of water quality in the western Delta." It is elementary that, if a condition is within the control of the Lead Agency, then the agency is required by CEQA to mitigate any adverse effects of its project on the environment. As stated in Public Resources Code section 21002, "it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects." Because the discussion of project operations is so vague, the document fails to identify -- let alone mitigate for -- such adverse effects on the environment and so fails to comply with CEQA.	The Federal and State Lead Agencies have done their best to make the EIR/EIS for the proposed project as fair, objective, and complete as possible. The commenter is directed to the following Master Responses: 14 (Water Quality), 15 (NPDES Permit Holders), 22 (Mitigation, ECs, AMMs, and Alternative-Specific Environmental Commitments), and 28 (Operational Criteria). The project alternatives include various environmental commitments and avoidance and minimization measures intended to avoid the occurrence of significant (CEQA) or adverse (NEPA) effects or at least minimize the severity of such effects. Where, even assuming implementation of these ECs and AMMS, effects are determined to be significant or adverse, mitigation measures will be implemented to avoid and/or reduce these effects, where feasible. Refer to Chapter 8 (Water Quality) of the Final EIR/EIS for further discussion on the proposed mitigations, ECs, and AMMs associated with significant environmental impacts related to water quality. Please see Master Response 1 (Environmental Baselines) for information regarding Fall X2 and how it is considered in the EIR/EIS.
2512	15	[A] specific operational element illustrates the reasons that the lack of an operational plan renders the RDEIR/SDEIS inadequate under CEQA. One of the key elements of Alternative 4A is additional spring outflow in order to meet the needs of threatened and endangered fish species. However, the RDEIR/SDEIS does not describe the quantity, the timing or the source of water for this additional outflow. Without such details, it is simply impossible for the public to understand what might be the effect of implementing the project. At most, the RDEIR/SDEIS says, in section 4.1.2.2 at page 4.1-6, that the proposed project includes spring outflow criteria, which are intended to be provided through acquisition of water from willing sellers. If sufficient water cannot be acquired for this purpose, the spring outflow criteria will be accomplished through operations of the SWP and CVP to the extent an obligation is imposed on either the SWP or CVP under federal or applicable state law. Essentially, this statement says to the public that the Department [DWR] will -- from some source(s) to be determined -- acquire a quantity of water to be determined, that will be used in some manner yet to be determined, with effects that will surely be beneficial to the environment. This does not represent the good faith analysis required by CEQA.	The Final EIR/EIS includes additional specificity, and analysis as appropriate, regarding the quantity and timing of the spring outflow criteria. The incremental changes in Delta outflow under Alternative 4A compared to baseline conditions are a function of both the facility and operations assumptions, including north Delta intakes capacity of 9,000 cfs, OMR flow requirements, Fall X2 requirements, and the reduction in water supply availability due to increased north of Delta urban demands, sea level rise, and climate change (the last three assumptions, plus Fall X2 requirements, are included in both the No Action Alternative (ELT) and Alternative 4A, but not in Existing Conditions). Results for the range of changes in Delta outflow under Alternative 4A are presented in more detail in EIR/EIS Appendix 5A, BDCP/California WaterFix EIR/EIS Modeling Technical Appendix. Changes in long-term average Delta outflow under Alternative 4A (ELT) as compared to the No Action Alternative (ELT) and Existing Conditions are shown in Figures 5-37 through 5-39 and Tables 5-10 through 5-12 in EIR/EIS Chapter 5. Past experience indicates that sufficient water should be available for purchase to maintain adequate spring outflows, though available amounts vary by water year type. (See DEIR/DEIS, Chapter 5, p. 5-51.) With new North Delta intakes in place, available amounts should increase, given the greater flexibility of the State Water Project to divert water without causing unacceptable harm to fish. (DEIR/DEIS, p. 30-117.) To summarize changes in Delta outflow under Alternative 4A, late-fall and winter outflows remain similar or show minor reductions in Alternative 4A (ELT) compared to No Action Alternative (ELT) and are slightly higher relative to Existing Conditions. In the spring months, outflow would remain similar under Alternative 4A (ELT) as compared to No Action Alternative (ELT), and would be slightly reduced compared to Existing Conditions. In the fall months, outflow under Alternative 4A would increase relative to Existing Conditions, and as compared to the No Action Alternative (ELT), would be similar because of Fall X2 requirements in wet and above-normal years.

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2512	16	One of the key changes from the current conditions is the proposed construction of the North Delta Diversion near Hood and the use of that diversion to avoid adverse impacts to fisheries in the Delta. The addition of a second point of diversion means that the CVP and SWP need to determine when water will be diverted from which point of diversion and in what quantities. The RDEIR/SDEIS, however, only states in section 4.1.2.2 at page 4.1-6 that the proposed project operations "include a preference for south Delta pumping in July through September to provide limited flushing for improving general water quality conditions and reduced residence times." As with the discussion of spring outflow criteria, this general statement begs the questions needed for a good faith environmental analysis: to what extent will the preference be exercised, how much of a preference is there, in which year types, how much flushing and measured at what point(s) in the Delta, for which water quality objectives and what degree of reduction in residence times. Without answers to these (and other) questions, there simply is not an adequate description of what constitutes the project to allow for the environmental analysis contemplated by CEQA, and the Department [DWR] must recirculate the RDEIR/SDEIS.	The action alternatives, as presented in the DEIR/DEIS and the RDEIR/SDEIS, assume use of a portion of Sacramento River inflow to maintain south Delta water quality in summer months, as described in this comment. In the Final EIR/EIS, the CALSIM II model code was modified to simulate the proposed project, Alternative 4A, to explicitly provide a preference for use of the south Delta intakes for up to 3,000 cfs during July through September to minimize potential water quality degradation in the south Delta channels. No specific intake preference is assumed beyond 3,000 cfs. In response to the assertion that the project description is undefined, please see the responses to Comment Nos. 2, 6, and 10 in this letter (LTR#2512). Recirculation of RDEIR/SDEIS is not warranted, please see Master Response 46 (Recirculation/Scoping).
2512	17	The RDEIR/SDEIS properly recognizes that the environment in the Delta is likely to change over time and so proposes an adaptive management program to address those changes. However, as the Exponent report [ATT1] states at page 7, "[i]t is well-established that there is substantial uncertainty in the Delta ecosystem, and an adaptive management strategy is necessary. However, an adaptive management strategy should not be used as a means to circumvent project planning." Perhaps the key omissions in the adaptive management program are: (i) the lack of any description of how the iterative planning process will occur, and (ii) the key criteria for changing project operations. At best, the RDEIR/SDEIS states, on page 4.1-18, that it is assumed that the adaptive management process "would not, by itself, create or contribute to any new significant effects." The lack of detail about the adaptive management program means that the City [of Brentwood] cannot determine who will be involved in the adaptive management program (e.g., could the City or its consultants actively participate in these discussions on a real-time basis or will the City be limited to hearing about decisions long after they are made), how often project operations will be modified (e.g., hourly, daily, weekly, monthly, annually, or on an "as needed" basis), whether the criteria for modifying project operations will include water quality at the City's intake or be limited to the needs of fish species, and many other important questions. The Department [DWR] must withdraw the document, develop a description of how it would actually operate the SWP and, with the assistance of the Bureau of Reclamation, the CVP, analyze those operations and then give the public the opportunity to evaluate the potential impacts associated with those operations.	Please see Master Response 33 concerning Adaptive Management and Monitoring. The Collaborative Science and Adaptive Management Program (CSAMP) is not used a means to circumvent project planning. The structure of the collaborative science elements of the adaptive management and monitoring program is summarized on page ES-39, the Executive Summary of the RDEIR/SDEIS. As part of this structure, a memorandum of agreement will be executed between a variety of stakeholders and regulatory agencies. Compliance with CEQA and NEPA mitigation measures, along with regulatory permit conditions and applicable laws, would be adhered to and carried out by the Lead Agencies. In the event that, through the CSAMP process, the participating entities identified desirable operational changes that could have their own significant effects not addressed in this EIR/EIS, or could have significant effects substantially more severe than those addressed herein, the Lead Agencies would need to conduct supplemental environmental review under CEQA and NEPA. (State CEQA Guidelines, § 15162; 40 CFR § 1502.9[c].) The Federal and State Lead Agencies have done their best to prepare the EIR/EIS for the proposed project as fair, objective, and complete as possible. The Lead Agencies are following the appropriate legal process in complying with CEQA and NEPA. These agencies readily acknowledge, however, that the documentation addresses a number of topics for which some scientific uncertainty exists. Such uncertainty can give rise to differing opinions as to what conclusions may be reached. However, disagreement between experts does not invalidate the thorough analyses conducted during this multi-year process. The EIR/EIS fulfills the requirements of CEQA and NEPA and does not need to be withdrawn. Upon completion of the CEQA and NEPA processes, the decision makers will consider the environmental documentation prior to rendering a decision on the proposed project and/or on the alternatives.
2512	18	To the extent that the RDEIR/SDEIS actually attempts to define a project for analysis, it does not analyze the project actually being proposed for adoption. It is well-established that the purpose of an EIR is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR "protects not only the environment but also informed self-government." Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564; Cadiz Land Co., Inc. v. Rail Cycle, L.P. (2000) 83 Cal.App.4th 74, 95 (EIR's failure to disclose to the public and government agencies critical information necessary to evaluate the significance of a project's impacts is prejudicial error). An EIR that describes one project but analyzes another does not meet this basic objective. County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d at 197 (Observing that the EIR's	Although the commenter has accurately quoted from case law the general principle that a legally adequate project description is key to an adequate EIR, the Lead Agencies do not agree that the project description and the related analyses in the EIR/EIS are legally inadequate. As no specific examples of alleged RDEIR/SDEIS mismatch between the analyses and the project as defined have been identified in this comment, no detailed response is possible.

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		"incessant shifts among different project descriptions . . . vitiate the city's EIR process as a vehicle for intelligent public participation."); accord, Western Placer Citizens for an Agriculture [and] Rural Environment v. County of Placer (2006) 144 Cal.App.4th 890, 898 (the project analyzed must be consistent with the project description, "[t]he defined project and not some different project must be the EIR's bona fide subject.") In addition, EIRs prepared pursuant to CEQA serve as "an environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." Friends of "B" Street v. City of Hayward (1980) 106 Cal.App.3d 988, 993. Consistent with that purpose, the CEQA Guidelines require a lead agency to "use its best efforts to find out and disclose all that it reasonably" could regarding a project's potential effects. Laurel Heights Improvement Association v. Regents of University of California (1988) 47 Cal.3d 376,399 (citing CEQA Guidelines [Section] 15144).)	
2512	19	There are several areas where the mismatch between the project as analyzed and the project as actually proposed is so great as to call into question the entire analysis. The Exponent report [ATT1], at pages 2 and 10, illustrates these key areas: (i) tidal wetlands, (ii) the salinity control point (Emmaton vs. Three Mile Slough), and (iii) the Head of Old River barrier.	This comment is followed by specifics as stated in Comment Nos. 20-22 in this letter (LTR#2512). Please refer to the responses below associated with those comments. Otherwise, this comment on its own is too general for a detailed response.
2512	20	The modeling runs used for the RDEIR/SDEIS (which are the same model runs as were used for the BDCP DEIR/S) assumed that there would be at least 25,000 acres of tidal marsh by 2025 and 65,000 acres of tidal marsh by 2060. By contrast, the actual project currently being proposed only includes 59 acres of tidal marsh. This difference is quite important; tidal marsh habitat has a beneficial effect on salinity in the Delta. Exponent report [ATT1] at page 10. Thus, Exponent concludes that the "salinity impacts that are disclosed in the RDEIR/SDEIS are almost certainly underestimated because of the failure to conduct model runs that accurately represent the limited tidal marsh restoration contemplated" by the California WaterFix project. Exponent report at 11.	The Final EIR/EIS includes revised CALSIM/DSM2 modeling run results that update the model results included in the RDEIR/SDEIS. These modeling results accurately reflect the tidal wetland restoration proposed under Alternative 4A. These results have been used to confirm the analyses in Chapter 11, Fish and Aquatic Resources and are included in Appendix 11C. These results are also updated in Chapter 5, Water Supply, Chapter 6, Surface Water, Chapter 7, Groundwater, Chapter 8, Water Quality and several other Final EIR/EIS chapters. In addition, please refer to Master Responses 14 (Water Quality) and 30 (Modeling). (See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 [court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta]; and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 [court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches].)
2512	21	The modeling runs used by the RDEIR/SDEIS calculate compliance with the water quality objectives mandated in D-1641 at Three Mile Slough, which is located substantially upstream from the former salinity compliance point at Emmaton. Thus, compliance with a given salinity requirement at Three Mile Slough requires less outflow than compliance with the same salinity requirement at Emmaton. The modeling used for the RDEIR/SDEIS assumed compliance would occur at Three Mile Slough but the revised project now contemplates compliance with the salinity standards at Emmaton. Thus, all of the estimates of necessary outflow to meet a given salinity standards are underestimated. Given the importance of those salinity standards, this change makes it difficult, if not impossible, for any party to understand the true effects of the proposed project on salinity.	The Final EIR/EIS includes model results for Alternative 4A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The Alternative 4A model run includes the compliance location for water quality objectives mandated in D-1641 to be located at Emmaton. The results are presented in Appendix 5A, Section C, in addition to the model results previously provided in the Draft EIR/EIS. The comparative results between Alternative 4A and the No Action Alternative and the Existing Conditions are generally consistent with the impact analysis results presented in the RDEIR/SDEIS. Alternative 4A would have substantially less effect on Delta water quality such that significant impacts were only identified for electrical conductivity (EC) at Emmaton and Prisoners Point, and mercury associated with the limited tidal habitat restoration that would be implemented. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. Please see the significance tables within the Executive Summary and Chapter 8, Water Quality as well as Appendices 8H - Electrical Conductivity and 8I - Mercury within the Final EIR/EIS. Please also refer to Master Responses 14 (Water Quality) and 30 (Modeling); see also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 (court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta); and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 (court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative

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			approaches).
2512	22	The Head of Old River barrier (HORB) is an important facility that determines, in significant part, salinity in the central and southern Delta. As described in the Exponent report [ATT1], the project assumes that HORB would be closed from January to June 15, and in October and November. However, the modeling assumes that the HORB would 50% open from January to June 15 and prior to the San Joaquin River pulse flow in October. Closing HORB for a longer time will result in degraded water quality in the central and southern Delta, and potentially at the City [of Brentwood]'s water intake. None of those effects are modeled.	The Final EIR/EIS includes model results for Alternative 4A at ELT conditions as compared to the No Action Alternative at ELT conditions and compared to Existing Conditions. The Final EIR/EIS indicates that for the purposes of the CALSIM II model runs, the modeling for operations of the Head of Old River Barrier in October assumed the barrier would be open 50 percent of the time for 2 weeks (pre-pulse) and closed for 2 weeks (pulse). In November, the Head of Old River Barrier is required to be open 50 percent for 2 weeks (post-pulse) and 100 percent open for 2 weeks. It is assumed that the barrier would be open 100 percent of the time in December. In January, the barrier becomes operational 50 percent of the time when salmon fry are migrating (based on real time monitoring), which generally occurs when flood flow releases are being made. The model assumptions include the initiation of the salmon fry migration to start on January 1. The model assumes that the barrier would be open 50 percent of the time in February through May. In June, the barrier would be open 50 percent for 2 weeks and 100 percent open for 2 weeks. The barrier is assumed to be open 100 percent of the time in July, August, and September. With these assumptions, the modeling was carried out to provide the best forecast on operating the HORB with project implementation.
2512	23	The RDEIR/SDEIS seeks to address inadequacies in the environmental analysis by means of the sensitivity analysis. The RDEIR/SDEIS states, at Appendix B, p. 83, that modeling results " indicate that the incremental changes for Alt 4A (H3) and Alt 4A (H4) when compared to the No Action Alternative are trending similar to A4 (H3) and A4 (H4), at both the ELT [Early Long-Term timeframe] and LLT [Late Long-Term timeframe]." It is wholly unclear what the phrase "trending similar" means and that certainly does not constitute the type of analysis that would be necessary under CEQA to rely upon the previous analysis.	Modeling conducted for the proposed project is based upon comparisons between and among the alternatives. Base assumptions are input into the models and then the parameters of the operations of the alternatives are input and the models are run. Future time steps must include assumptions of such parameters as climate change, continued operations, population, and other project that would be expected to be developed or operated. Comparisons of the action alternatives are then made to the No Action scenario (for NEPA) or to Existing Conditions (CEQA). Therefore, the conclusion that a model run is trending similar would indicate that comparatively, the effects should be very similar. This process is the best available science at this time. Additionally, Section 15151 of the State CEQA Guidelines notes that disagreement among experts does not make an EIR inadequate. Such disagreements can include the types of analyses employed, so long as the Lead Agencies have explained their rationale for the types of models employed and why. (See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 [court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta]; and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 [court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches].) For further information, see Master Response 30.
2512	24	The most important error in the modeling that was performed for the BDCP DEIR/S relates to the quantities of water that are used for Delta outflow vs. Delta exports and the quantities of water that will move through the Delta as contrasted to be diverted at the North Delta Diversion. As described in the North State Water Alliance comments from last July, at pages 42-43, that modeling underestimates Delta exports and overestimates Delta outflow by about 200,000 afy [acre-feet per year]. Further, the modeling underestimates the quantity of water that would be diverted at the North Delta Diversion by about 680,000 afy and overestimates the quantity of water diverted at Clifton Court Forebay by about 460,000 afy. The net result of these errors is to substantially underestimate the effects of the project on Delta water quality. For the Department [DWR] not to perform new modeling to correct these very substantial errors (the capacity of Folsom Reservoir is just under 1,000,000 af), particularly when they were brought to the Department' s attention in formal comments, is simply inexcusable and is a clear violation of CEQA.	With respect to the comment on the Draft EIR/EIS that is referenced in this comment, it appears that this comment was based on a separate consultant's review (MBK) of the January 2014 review of BDCP modeling. The EIR/EIS modeling of Alternative 4 H1 through H4 was based on a No Action Alternative model developed in 2010. Models typically evolve as the understanding of the system and operations improves and the assumptions are better defined. MBK's independent modeling of the No Action Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – October north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK's modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS. The aggregate effect of the changed assumptions under MBK's modeling of Alternative 4 is resulting in increased Delta exports and a corresponding reduction in Delta outflow compared to the EIR/EIS. Further, as noted in the Tables 5-7 through 5-9 of the Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting Delta outflow will be different under Alternative 4 compared to the No Action Alternative. The effects of changes in Delta outflow on water quality, fisheries and other

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			environmental resources under Alternative 4 are analyzed in other resource chapters of the EIR/EIS, including Chapters 8 (Water Quality) and 11 (Fish and Aquatic Resources). MBK's modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to EIR/EIS modeling. As noted in the Tables 5-7 through 5-9 of the Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting north versus south Delta exports will be different under Alternative 4 compared to the No Action Alternative. The range of water quality effects under Alternative 4 as a result of these export changes are analyzed in Chapter 8 of the EIR/EIS. With this explanation and the existing EIR/EIS documentation, the Lead Agencies find no violation of CEQA's requirements with respect to modeling efforts in the BDCP Draft EIR/S. Please see Master Responses 14 (Water Quality) and 30 (Modeling) for additional information. See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 (court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta); and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 (court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches). Please see Master Response 30.
2512	25	The City [of Brentwood] respectfully requests that the Department [DWR] withdraw the RDEIR/SDEIS and recirculate a revised environmental document that incorporates the needed revisions to address shortcomings. The City would welcome the opportunity to work with the Department in this effort.	Another recirculation of the EIR/EIS is not required beyond the information provided in the RDEIR/SDEIS (please refer to Master Response 46). This comment does not identify any evidence why an additional recirculation should occur.
2512	26	[ATT1:] The Proposed Project was not modeled. The RDEIR/SDEIS identifies Alternative 4A, also known as the "WaterFix," as the preferred alternative. However, Alternative 4A was not explicitly modeled. Instead, the environmental impacts of Alternative 4A were assessed using modeling of Alternative 4 (first presented in the 2013 Draft RDEIR/SDEIS) and a limited sensitivity analysis. Although the RDEIR/SDEIS states, "Lead agencies have determined that they may reasonably rely on modeling conducted for Alternative 4 to accurately predict the environmental effects of Alternative 4A [Footnote 1: See New Alternatives: Alternatives 4A, 2D and 5A (Chapter 4 of the Bay Delta Conservation Plan/California WaterFix RDEIR/SDEIS) at page 4.1-43, lines 17-19 ('Physical Modeling').]," the differences between Alternative 4 and Proposed Project Alternative 4A are significant, as shown in Table 1 [ATT1: ATT1]. Three of the differences between the models -- the amount of tidal restoration, the salinity objective compliance location, and the operation of the barrier at the Head of Old River -- have direct and immediate impacts on the salinity levels predicted to occur throughout the Delta, including at Brentwood's intake. In addition, salinity within the Delta often behaves in a non-linear fashion, such that without being modeled, it is not possible to reliably infer the effects of multiple changes in model assumptions on model output. In summary, the differences between Alternative 4A and Alternative 4 are significant enough that the environmental impacts of Alternative 4A cannot be determined based on the existing modeling.	The Lead Agencies respectfully disagree with the assertion that the proposed project was not modeled. In preparing this Final EIR/EIS, the Lead Agencies conducted additional modeling runs that have verified and confirmed the analysis in the RDEIR/EIS of the new alternatives, including Alternative 4A (the proposed project). Please refer to Final EIR/EIS Appendix 5A, BDCP/California WaterFix EIR/EIS Modeling Technical Appendix, which presents results of CALSIM II and DSM2 modeling results for all of the EIR/EIS alternatives. Notably, it is legally permissible to confirm conclusions found in a Draft EIR through new modeling conducted in connection with the preparation of a Final EIR. (San Francisco Baykeeper v. California State Lands Comm. (2015) 242 Cal.App.4th 202, 220, 223-224; see also Beverly Hills Unified School Dist. v. Los Angeles County Metropolitan Transportation Authority (2015) 241 Cal.App.4th 627, 643-651, 660-666.) Please also refer to Master Response 30 (Modeling) regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS, along with Master Response 15 (Effects on NPDES Dischargers). The latter master response provides clarification on the city of Brentwood's concern relating to changes in the salinity and affecting the city's ability to meet its permit requirements. Additionally, please see the responses to Comments Nos. 2512-1, 2512-7, 2512-12, 2512-23, and 2512-24. Where impacts are determined to be significant, mitigation measures will be implemented to avoid and/or reduce these effects, where feasible. Refer to Chapter 8 (Water Quality) of the Final EIR/EIS for further discussion on the proposed mitigations, ECs, and AMMs associated with significant environmental impacts.

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2512	27	[ATT1: ATT1: Table 1. Comparison of modeled conditions and conditions of proposed project Alternative 4A.]	The cited comparison table is being used by the commenter to allege that the proposed project was not modeled. This is an incorrect assumption. Please refer to the response to Comment No. 2512-26.
2512	28	[ATT1:] The appropriate timeframes for the Proposed Project were not evaluated. The RDEIR/SDEIS indicated that two baselines were used in the current analysis: the "Existing Conditions" baseline defined in the 2013 Draft EIR/EIS was used for the CEQA impact analysis, and the "No Action Alternative Early Long-Term" (NAA-ELT) scenario was used for the NEPA impact analysis. The impacts of the proposed project were evaluated quantitatively only in the Early Long-Term (ELT) timeframe. Long-term impacts of the proposed project were evaluated only qualitatively, even though the 2013 EIR did evaluate Alternative 4 (the 2013-proposed project) for a Late Long-Term (LLT) timeframe quantitatively, even though the project documents note that the project "would continue indefinitely." [Footnote 2: The RDEIR/SDEIS states, on p. 4.1-42, "The same 'Existing Conditions' baseline defined in the Draft EIR/EIS applies to Alternatives 4A, 2D, and 5A, for the purposes of the CEQA impact analysis. . . . Because Alternatives 4A, 2D, and 5A, contemplate a shorter permit period for project implementation than the other alternatives, the new 'No Action Alternative Early Long-Term' (No Action Alternative ELT) is used as the NEPA point of comparison for these alternatives. The No Action Alternative ELT is described and analyzed in Section 4.2. However, because the project would continue indefinitely, the analysis qualitatively examines impacts at the Late Long-Term timeframe for Alternative 4A, 2D, and 5A, but does not make a CEQA or NEPA conclusion based off the No Action Alternative LLT baseline."] Water quality impacts for the LLT using DSM2 model runs provided by DWR were evaluated previously for another City (City of Antioch) in the Western Delta (see Attachments A and B [ATT2, ATT3]) close to Brentwood. Model results showed significant water quality impacts in the LLT timeframe, which we anticipate would have significant impacts on the City of Brentwood's ability to take use water from the Delta. Because the project "would continue indefinitely," a quantitative analysis of the long-term impacts of the project is needed.	Please refer to the response to Comment 2512-12 for the timeframes mentioned by the commenter, as well as the model runs given to Antioch. Overall, construction of the proposed California WaterFix water conveyance facilities would be sequenced over approximately 10 years. Construction of individual components (e.g. intakes, tunnels) would range from one to six years. The construction-related impacts are disclosed in individual resource area chapters in the EIR/EIS and RDEIR/SDEIS, as are the operations and maintenance related impacts that would be expected over the life of the project. For additional information regarding the environmental baselines used in the EIR/EIS, please see Master Response 1 (Environmental Baselines).
2512	29	[ATT1: ATT2: Figure 1. Measured and simulated average electrical conductivity (EC) at Brentwood (1974-1979). Measured data are from station CHCCC006, located approximately 8 miles from Brentwood's intake. DSM2 simulations EBC1 and EBC2 were provided by DWR (results are shown for model node 206, within Rock Slough).]	This comment relates to a technical figure on measured and simulated EC values associated with the city of Brentwood's intake. This figure is part of the commenter's contention that the baseline and project analyses are flawed. Please refer to the response to Comment2512-21 and Master Responses: 1 (Environmental Baselines), 14 (Water Quality), and 15 (NPDES Permit Holders).
2512	30	[ATT1: ATT3: Table 2. Description of available baseline scenario model runs, together with DSM2 model results showing the number of days Brentwood will be able to use water at its intake (node 206), under EBC1, EBC2, and NAA ELT scenarios (1974–1991) by year type.]	This comment relates to a technical table on model results associated with salinity-related constituents associated with the city's Brentwood intake. Please refer to the response to Comment No. 2512-29.
2512	31	[ATT1:] Even given concerns with the modeling analysis, it is clear that water quality impacts are significant. There are significant differences between the 2013 Alternative 4 (which was modeled) and the Proposed Project (2015 Alternative 4A, which was not modeled). Even though the current RDEIR/SDEIS envisions that Alternative 4A would use preliminary project operations based on Operations Scenarios H3 and H4 (which would have lesser impacts to salinity than Operations Scenarios H1 and H2), these scenarios were part of the original project modeling, and thus, the basis for a shift from "significant and unavoidable impacts"	Separate and distinct model runs were conducted to assess Alternatives 4 and 4A effects on water quality. An important difference between Alternatives 4 and 4A is that Alternative 4A does not include the 65,000 acres of tidal habitat restoration, the hydrodynamic effect of which was reflected in the Alternative 4 modeling. This difference contributed, in part, to the reduced impacts under Alternative 4A relative to Alternative 4. Regarding the Executive Summary, the impact conclusion for Alternative 4 for chloride should have been shown as significant and unavoidable (SU), which was the impact determination in Chapter 8, Water Quality, Impact WQ-7, and has been corrected in the Final EIR/S. Please refer to Master Response 30 (Modeling) regarding modeling conducted for the RDEIR/SDEIS and updated for the Final EIR/S. Notably, it is legally permissible to confirm conclusions found in a Draft EIR through new modeling conducted in

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		to "no significant impacts" is unclear. (In fact, effects on chloride concentrations are listed as "LTS," or "less than significant," for Alternative 4 in the RDEIR/SDEIS Executive Summary [Footnote 14: RDEIR/SDEIS at p. ES-43.], even though the same alternative was determined, using the same model runs, to have "significant and unavoidable" impacts to salinity in the western Delta in 2013; the basis for this change relative to findings for Alternative 4 in the 2013 EIR/EIS is also unclear.) In addition, the severity of impacts at Brentwood's intake is concealed, because the RDEIR/SDEIS presents model results as daily, monthly, or yearly averages. Water for Brentwood's use is taken from discrete locations within the Delta, and does not rely on average salinity, but on salinity measured at each instant in time. Thus, it is only through a detailed examination of model results that Brentwood can evaluate the water quality impacts that the Proposed Project is expected to induce.	connection with the preparation of a Final EIR. (San Francisco Baykeeper v. California State Lands Comm. (2015) 242 Cal.App.4th 202, 220, 223-224; see also Beverly Hills Unified School Dist. v. Los Angeles County Metropolitan Transportation Authority (2015) 241 Cal.App.4th 627, 643-651, 660-666.) Also, please refer to Master Response 14 (Water Quality) regarding the use of monthly and annual averaging periods in the assessment of water quality impacts. Contrary to the commenter's suggestion, the EIR/EIS does not conceal the severity of impacts at Brentwood's intake. Where impacts are determined to be significant, mitigation measures will be implemented to avoid and/or reduce these effects, where feasible. Refer to Chapter 8 (Water Quality) of the Final EIR/EIS for further discussion on the proposed mitigations, ECs, and AMMs associated with significant environmental impacts.
2512	32	[ATT1:] The sensitivity analyses performed in support of the RDEIR/SDEIS appear to indicate significant increases in chloride concentrations in the interior Delta, including in Old River at Rock Slough, one of the locations from which Brentwood [the City] obtains its water supply, under certain conditions. For example, the Supplemental Modeling for New Alternatives indicates that the Proposed Project (Alternative 4A, Operations Scenario H3) would cause increases in chloride concentrations at this location relative to the existing-condition run (which, as noted above, is biased toward higher-than-actual salinity) in drought years during the months of March (+5%), May (+9%), and June (+32%). Similarly, in all year types during the 1976-1991 simulation period, salinity would increase in the months of March (+4%) and June (+12%). Even relative to the No Action Alternative-Early Long Term, salinity would increase at Rock Slough in nearly all of these months by as much as +16% (in June of drought years). [Footnote 15: See RDEIR/SDEIS Appendix B at p. B-94.] In addition to increases in chloride concentrations (i.e., salinity), the City is concerned about increases in bromide concentrations that will be caused by the Proposed Project. The RDEIR/SDEIS notes that "multiple interior and western Delta assessment locations would have an increased frequency of exceedance of 50 µg/L, which is the CALFED Drinking Water Program goal for bromide as a long-term average applied to drinking water intake. . . . These locations [include] Franks Tract, Old River at Rock Slough [a source of supply to Brentwood] . . . Similarly, these locations would have an increased frequency of exceedance of 100 µg/L, which is the concentration believed to be sufficient to meet currently established drinking water criteria for disinfection byproducts The greatest increase in frequency of exceedance of 100 µg/L would occur at Franks Tract (6% increase) and San Joaquin River at Antioch (4-5% increase depending on operations scenario)." [Footnote 16: RDEIR/SDEIS at p. 4.3.4-9. The RDEIR/SDEIS discussion regarding bromide states (incorrectly) that "the use of seasonal intakes at these locations is largely driven by acceptable water quality, and thus has historically been opportunistic. Opportunity to use these intakes would remain, and the predicted increases in bromide concentrations at Antioch and Mallard Slough would not be expected to adversely affect MUN [municipal water supply] beneficial uses, or any other beneficial use, at these locations."] Yet the RDEIR/SDEIS concludes that impacts due to bromide are "less than significant." [Footnote 17: RDEIR/SDEIS at p. ES-43.] This conclusion is not credible.	Please refer to Master Response 30 (Modeling) regarding the modeling conducted for the water quality assessments in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 4A, 2D, and 5A. The drought period and long-term average modeled changes in chloride noted in the comment are one component of assessing whether chloride conditions under the alternative would rise to the level of triggering one of the significance thresholds in Section 8.3.2.3, Effects Determination, in Chapter 8, Water Quality. Based on CEQA or NEPA threshold significance criteria, an increase in concentration by a certain percent is not itself an adverse effect. The absolute change in concentration is a consideration, as is the use of assimilative capacity, the duration of the effect, and the beneficial uses affected. And the comparison to the No Action Alternative is important to understand the effects of the alternative separate from climate change effects and increased water demands. Using the same table cited in the comment (Table Cl-7 in Appendix B of the RDEIR/SDEIS for Alternative 4A-H3), the months cited would have an average drought period increase of 7 mg/L or less and a long-term average increase of 5 mg/L or less. The additional use of assimilative capacity (shown in Table Cl-13 in Appendix B of the RDEIR/SDEIS for Alternative 4A-H3) was shown to be low, on the order of 3% or less. The modeling results in the Final EIR/EIS for Alternative 4A confirm these results (Appendix 8G, Chloride, Tables Cl-69 and Cl-71). These were all considerations in making the determination that these small increases in chloride during these months would not rise to the level of adversely affecting beneficial uses and are therefore determined to be of less than significant. Regarding bromide, the increased frequency of exceeding the noted thresholds was one factor in the assessment. The comparison to the No Action Alternative is also important to understand the effects of the alternative separate from climate change effects. Regarding Old River at Rock Slough, the increase in frequency of exceedance of the 50 µg/L threshold was shown to be unchanged (100% for both conditions) and the increase in the frequency of exceedance of the 100 µg/L would be 1% or less. Further, the long-term average concentrations would decrease substantially (Table Br-1 in Appendix B of the RDEIR/SDEIS and Table-22 in Appendix 8E, Bromide, of the Final EIR/EIS). Regarding other bromide changes, as stated in Chapter 8, Water Quality, in Impact WQ-5 for Alternative 4A and further elaborated in Impact WQ-5 for Alternative 4, the use of intakes at Mallard Slough and the City of Antioch is seasonal because of water quality constraints related to sea water intrusion. On a long-term average, bromide at these locations can be extremely high (>3,000 µg/L), but during seasonal periods of high Delta outflow levels can be <300 µg/L. As stated for Bromide in Section 8.3.1.7, Constituent-Specific Considerations Used in the Assessment, source water with bromide between 100 µg/L and 300 µg/L is believed sufficient to meet currently established drinking water criteria for disinfectant byproducts (DBPs), depending on the amount of Giardia inactivation required. The impact conclusions were based on all of these considerations. Section 15151 of the State CEQA Guidelines notes that disagreement among technical experts does not make an EIR inadequate. Such disagreements can include arriving at different conclusions on significance of

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			a particular impact, so long as the Lead Agencies have explained their rationale for their determinations. See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 (court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta); and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 (court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches).
2512	33	[ATT1:] Based on analysis of DWR modeling results (using a salinity threshold of 976 µS/cm), the numbers of usable days at Brentwood's intake were 15.6 (EBC1 [existing biological conditions]) and 19.1 (EBC1) greater under the existing-conditions scenario compared to the Alt H3 scenario during fall months (Sep-Nov) for above- and below-normal years. Also, during the entire simulation period 1974-1991, the number of usable days was greater under the existing conditions scenarios (EBC1, 5.6 days; EBC2, 6.8 days) compared to Alt H3 for the fall months (Sep-Nov). This trend was true also for the dry-year (8-10 days) and critical-year (5-7 days) scenarios.	Please see Master Response 19 (Climate Change and Sea Level Rise/Salinity Effects) regarding the use of daily and sub-daily DSM2 model results for interpretation of effects of the project alternatives on salinity-related parameters at Delta assessment locations. Please also refer to the responses to Comments2512-23, 2512-31, and 2512-32.
2512	34	[ATT2: Attachment A. Technical Comments on the BDCP and Associated EIR/EIS Letter Prepared by Flow Science Incorporated.]	The commenter has included this technical attachment prepared by Flow Science Incorporated. The key findings in this attachment allege the flaws of the EIR/EIS documentation. These findings have been presented in the body of the commenter's letter and have been addressed (i.e., refer to the responses in Comment Nos. 1 through 33 in this letter-LTR#2512). Section 15151 of the State CEQA Guidelines notes that disagreement among technical experts does not make an EIR inadequate. Such disagreements can include arriving at different conclusions on significance of a particular impact, so long as the Lead Agencies have explained their rationale for their determinations. See also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 793-796 (court rejects technical attack on computer modeling used to predict water supply, hydrology, salinity, and water levels in the Delta); and Town of Atherton v. California High Speed Rail Authority (2014) 228 Cal.App.4th 314, 350-351 (court upholds modeling used for EIR despite technical critique suggesting problems with the modeling or alternative approaches).
2512	35	[ATT3: Attachment B. Analysis of Water Quality Impacts to Antioch -- Evaluation of DSM2 Modeling Performed in Support of the BDCP Proposed Project by Flow Science Incorporated.]	Please refer to the response to Comment No. 2512-34.
2512	36	[ATT4: Attachment C. Review by the Delta Independent Science Board of the Bay Delta Conservation Plan/California WaterFix Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement.]	The commenter has included this technical review as an attachment to its comment letter, i.e., from the Delta Independent Science Board. This same attachment is also included with the Delta Stewardship Council's comment letter, LTR#2546. Responses to comments made by the Delta Independent Science Board can be found in the responses to the corresponding attachment to LTR#2546.
2513	1	The county Sanitation Districts of Los Angeles County support the adoption of the BDCP/California WaterFix and RDEIR/SDEIS , which would implement dual-bore tunnels to convey water to the existing State Water Project (SWP) pumping facilities, and environmental measures necessary to mitigate impacts in compliance with State and Federal environmental laws. These efforts propose to secure and protect California's water supply by building intakes in the north Delta to avoid increased salinity from tidal effects and expected climate change effects.	This comment is consistent with the fundamental purpose of the project to make physical and operational improvements to the SWP system in the Delta, water supplies of the SWP and CVP for users located south of the Delta, and Delta water quality consistent with statutory and contractual obligations of the SWP and CVP, as described in Section 2.3 of Chapter 2, Project Objectives and Purpose and Need, of the EIR/EIS. The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S.
2513	2	The county Sanitation District of Los Angeles County's recycled water program is one of the largest wastewater recycling programs in the world, with a long history of providing affordable, high-quality recycled water and accounting for a significant investment in Los Angeles County's recycled water infrastructure. The Sanitation Districts support the	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.

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		BDCP/California Waterfix because the projected water quality improvements, and specifically the reduced salinity of SWP water, are expected to improve local water quality and reduce the salinity of the Sanitation Districts' recycled water product. Further, this would improve the Sanitation Districts' ability to comply with Waste Discharge and Water Recycling Requirements issued by the Los Angeles and Lahontan Regional Water Quality Control Boards for recycling and surface water discharges from our water reclamation plants. Many potential users of recycled water express concern that irrigating with water with a higher salt content than other sources would adversely impact their plantings.	
2513	3	Lower salinity recycled water would also greatly improve the feasibility and cost of implementation measures that local agencies must take in accordance with the State Water Resources Control Board's Recycled Water Policy requirements associated with development of Salinity and Nutrient Management Plans. Reducing the regulatory burden on recycled water use and improving its quality would increase its use, thereby helping areas in Southern California that use SWP as a water supply develop local water supplies and reduce their dependence on water from the SWP. These efforts to develop local recycled water supplies also assist the State in attaining its goal to recycle at least two million acre-feet per year by 2030 (a goal that was adopted by the State Water Resources Control Board in the Recycled Water Policy) and move the State towards a sustainable water future, especially during the State's current extreme drought condition.	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.
2513	4	High chloride levels in SWP deliveries are partly responsible for local salinity discharge and water recycling permit requirements for the county Sanitation District of Los Angeles County's member agency, the Santa Clarita Valley Sanitation District, which operates the Saugus and Valencia water reclamation plants. High chloride levels in SWP deliveries contribute to elevated chloride levels in treated wastewater that is both recycled locally and discharged to the Upper Santa Clara River (USCR). The Santa Clarita Valley Sanitation District is currently developing an advanced water treatment facility to remove chloride from its wastewater in order to comply with limits based on the USCR Chloride Total Maximum Daily Load (TMDL) for its discharges. The cost to comply with the USCR Chloride TMDL is expected to exceed $100 million, thus increasing the annual cost for wastewater treatment, largely due to the fact that the SWP water used by the community contains chloride levels that approach and sometimes have exceeded the chloride discharge and water recycling limits. The Sanitation Districts understand that implementation of the BDCP/California Waterfix should reduce salinity levels in, and improve the quality of SWP water, thus providing a water quality benefit to Southern California including the Santa Clarita Valley.	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.
2514	1	The BDCP fails to consider that more generated river flows created by the viable Alternative Storage Facilities listed below will prevent reverse flows and eliminate the need for moving the existing points of diversion upriver and the Twin Tunnels concept of the plan. Proposed viable alternatives to be studied (required by NEPA & CEQA) increasing more river flows created by new storage facilities: 1) Raising existing Shasta Dam on the Sacramento River by 18.5 feet; 2) Construction of sites off-stream pumped -storage reservoir (pumped from the Sacramento River); 3) Construction of Auburn Dam on the American River (tributary to the Sacramento R.);	For more information regarding purpose and need of the proposed project please see Master Response 3. 15 alternatives and 3 new subalternatives were analyzed in the EIR/S and the RDEIR/SDEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the BDCP EIR/S and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4. The proposed project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Please refer to Master Response 6 for

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		4) Construction of Nashville Dam on Cosumnes River (tributary to the Sacramento R.); and 5) Construction of Temperance Flat Reservoir on the San Joaquin River. Benefits produced by the new storage facilities (more water) Benefits to offset the Bay Delta Problems: 1) Additional flows substantially mitigates the Bay Delta salt intrusion problem; 2) Major improvement to positive Delta flows in the Sacramento and San Joaquin Rivers during drought conditions; 3) Major improvement to benefit cooler average in-stream flows; 4) Substantially increases drought condition river flows; 5) Substantially increases flows available for the California Water Project and the Central Valley Water Project especially during drought conditions; 6) Cost benefit ratios substantially supersede Twin Tunnel portion of the Delta Plan ; and 7) Eliminates the need for new pumping facilities and the Twin Tunnels. Benefits produced by the new storage facilities (more water) Other Benefits: • Provides substantial additional flood protection (with the exception of Sites Reservoir); • Provides additional quantities of cold water to benefit in-stream flows; • Provides needed additional fire suppression; • Provides needed drought mitigation with controlled released waters; • Provides ecosystem/wildlife habitat; • Provides additional lake recreation; • Provides additional water for needed agricultural irrigation; • Provides substantial increases in power generation (with the exception of Sites and Temperance Flat Reservoirs); and • Provides water for the Folsom South Canal and water to the San Joaquin Valley (with the exception of Shasta Lake and Sites Reservoir)	additional details on demand management.
2514	2	The Executive Summary fails to consider viable alternatives and fails to display the present conveyance system to the Clifton Bay Forebay, which limits the public from analyzing the big picture. Figure ES-1 needs revision to display the present and proposed conveyance	The purpose of the BDCP/Water Fix EIR/EIS Executive Summary is to provide an overview of the contents of the EIR/EIS. It includes an overview of the conclusions of the impact analysis and a summary comparison of impacts between impacts.

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		system in more detail. The Executive Summary fails to display a cost benefit analysis.	The alternatives included in the EIR/EIS were developed through a detailed and robust development and screening process. Please seem Master Response 4 which provides information on the alternatives evaluated in the EIR/EIS. The EIR/EIS is not required to include a cost/benefit analysis. DWR has prepared a standalone assessment of the economic impacts of Water Fix. Please see Master Response 5 for more information on project costs and funding.
2514	3	The BDCP fails to consider the Department of Water Resources (DWR) projected climate change (loss of the majority of the Sierra Nevada snow pack by the year 2100) and the loss of summer river flows. The Plan needs reconsideration to address these issues.	A wide range of future climate change conditions were systematically modeled and analyzed including potential futures with less precipitation. Please refer to the Master Response 19 for a detailed summary of the modeling and analysis done regarding climate change.
2514	4	The big picture facing California is the State's need for more water coupled with projected climate change forecasting average over all rainfall with more floods, more droughts, coupled with earlier than normal winter and spring river runoff. The only answer is new storage facilities coupled with Clean-Green Hydro-Electric generation and public supported beneficial controlled releases.	The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. Although conservation components and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. The California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. Appendix 1C, Demand Management Measures, in the EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including storm water drainage. While these elements are not proposed as part of the BDCP or the California WaterFix, the Lead Agencies recognize that they are important tools in managing California's water resources. Please also see Master Response 37 regarding water storage.
2515	1	I respectfully urge you to reconsider the proposed Bay-Delta Conservation Plan (BDCP), specifically, the construction of the twin tunnels. The San Francisco Bay-Delta is the largest and most unique estuary on the Pacific Coast of the Americas. As Californians, we should value and protect this estuary. It provides an important and critical stop in the Pacific Coast fly over for migrating waterfowl, supports the largest nursery for California fisheries, contains 500,000 acres of California prime (sustainable) farmland, provides fun outdoor recreational activities, and supports an urban community that is home to over 4 million people. Instead of protecting this treasure, I believe the BDCP will have the opposite effect and greatly reduce, if not destroy, the Delta as it exists today. My understanding is that the current tunnel construction plan does not meet the 2009 Delta Reform Act. EPA has concerns that as proposed, the tunnel plan may result in violations of the Clean Water Act water quality standards and further degrade the ecosystem.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Refer to Master Response 31 (Compliance with Delta Reform Act).
2515	2	The BDCP has not effectively addressed the significant statewide and local concerns of environmental protection, resource conservation, or long-term sustainability of the Delta. In fact, in addition to an absence in a cost-benefit analysis, there has also been no analysis on water availability. Under the BDCP, state and federal agencies have made the unrealistic commitment to delivering five times more water than what is currently available.	The proposed project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Please refer to Master Response 4 for additional details on the selection of alternatives. Also, please see Master Response 6 for additional details on demand management.

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			The Proposed Project proposes to stabilize water supplies, and exports could only increase under certain circumstances in which hydrological conditions result in availability of sufficient water and ecological objectives are fully satisfied. It is projected that water deliveries from the federal and state water projects under the Proposed Project would be roughly about the same as the average annual amount of water that would be diverted under the No Action Alternative (i.e. 2025 conditions without the Proposed Project). It is projected that Delta exports from the federal and state water projects would either remain similar or increase in wetter years and decrease in drier years under Alternative 4A as compared to exports under No Action Alternative (ELT) depending on the capability to divert water at the north Delta intakes during winter and spring months. The estimated changes in deliveries for 4A are provided in the RDEIR/SDEIS 4.3.1 and Appendix A Chapter 5 Water Supply. Although exports under the Proposed Project would be similar to the amount water exported in recent history, it would make the deliveries more predictable and reliable, while reducing other stressors on the ecological functions of the Delta. The amount of water DWR can pump from the new north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the water contractors. Operations for the proposed project would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as described in the 2008 and 2009 BiOps (RDEIR/SDEIS Executive Summary ES.2.2).
2515	3	I as a taxpayer and concerned California citizen, I believe the plan is fiscally imprudent. In the interest of transparency, government officials need to disclose exactly what has been proposed and what is being considered, especially since a substantial amount of the financial burden will fall on California taxpayers and water rate payers. I recently read that funds from Prop 1 might be used to fund the tunnels. When taxpayers voted for Prop 1, this fact was not mentioned. If these funds are used, taxpayers will be forced to pay for a project they don't want. More transparency is needed.	DWR acknowledges your opposition to the project. Please see Master Response 5 regarding cost and funding and Master Response 40 regarding transparency.
2515	4	Your administration [Governor Brown] appears to be focused on going forth with the BDCP regardless of the short and long-term negative impacts, not only on the State's economy, but also on its ecosystem and local Delta communities. The effects of the BDCP will ultimately make the Delta region a less desirable place to live and visit; the plan will be devastating on tourism and recreation, both of which are the main economic drivers in the Delta region after agriculture. As a result, many marinas, which are small, family owned operations, will not survive a disruption in recreational business in conjunction with a major economic downturn.	The Lead Agencies acknowedge the discussion of community character in Chapter 16 of the EIR/EIS and RDEIR/SDEIS Appendix A (Socioeconomics) identifies the unique features of the Delta and describes the potential effects on Delta communities. Please see chapter 15 for a discussion on impacts to recreation. Impacts to agriculture are identified and discussed in Chapter 14; project proponents have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18 for more information on agricultural mitigation.
2515	5	Before rushing to a tunnel solution, I urge you to explore alternative means to lead California in a bolder, more enlightened, and comprehensive direction on water supply policy. A combination of Delta levee upgrades, local water supplies, conservation, and recycling will be less expensive and more resilient to droughts. AB 1150 which passed after the 1970 drought can be resurrected and updated. This law made possible significantly less water wastage by providing tax incentives for low-tech water conservation actions. Landscape management practices that not only help to retain moisture in the ground and improve soils can be encouraged.	The proposed project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Please refer to Master Response 4 for additional details on the selection of alternatives. Also, please see Master Response 6 for additional details on demand management.
2515	6	I strongly oppose the Delta Tunnels. California needs solutions that benefit the entire state. Let's restore the Delta, not destroy it.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species

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			that depend on the Delta.
2516	1	We own property on Bethel Island, CA. We own a house that is dependent on well water thru a small water company. Bethel Island has several small water companies funded by homeowners. We also own 80 plus acres that come with water rights. We have many concerns about the tunnels that will divert water from the delta to Southern CA. Most concerns have been articulated thru well written letters from concern citizens, such as restorethedelta.org. Here are the specific concerns relating to us: We do not want any additional costs related to testing of our well and the water salinity of the property with water rights. What steps will the State California and the Bay Delta Conservation Plan/Water Fix take to insure that we and other property owners in the same position will not have to pay additional fees/testing of water quality? Are you going to test wells and sloughs on a regular basis to check for salinity? Also, how quickly will you get the results to people depending on their water rights and/or well water to survive (plants, livestock, fish, etc.)? Also, how will the state of California and the Bay Delta Conservation Plan/Water Fix compensation those whose water rights become less valuable (i.e. more salinity in the water)?	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The EIR/EIS describes the potential groundwater effects of constructing water conveyance facilities in Chapter 7, Groundwater. None of the conveyance facilities under Alternative 4A would be located on Bethel Island. Therefore no effect on well supplies or quality is expected from project implementation or operation on Bethel Island. Chapter 14, Agricultural Resources assesses the potential for increased salinity in sloughs to affect irrigation water for Delta farms. Based on the analyses in Chapter 8, Water Quality indicates that some agricultural effect of salinity on agriculture could occur and mitigation measures including Mitigation Measure WQ-11 and AG-1, which would be implemented by DWR, would be needed to reduce these effects. Please refer Impact AG -2 for Alternative 4A.
2516	2	What will happen to the numerous boat owners whose boats are not equipped to handle salt water? Also, what will happen to the numerous marinas, boat repair shops, and restaurants owners who depend on boaters to survive, if the fisherman and women and general boaters stop coming to the Delta due to the changing condition of the water?	Water quality modeling results indicate that it is unlikely that there would be increased frequency of exceedance of agricultural electrical conductivity (salinity) objectives in the western, interior, or southern Delta. However, there could be increased long-term and drought period average EC levels during the summer months in the Sacramento River at Emmaton under Alternative 4A relative to the No Action Alternative (ELT). DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5for more information on costs and funding.
2516	3	Given government's track records, the Bay Bridge replacement, the lack of funding for the bullet train, the status of various levees in the Delta area, i.e., deterioration, and the state of roads in this state, how about fixing existing problems before starting another costly project, that is not needed.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 5 regarding cost.
2517	1	I am writing to state my opposition to the Delta Tunnels / California Water Fix (Alternative 4A)	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

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2517	2	The 2015 RDEIR/SDEIS fails to propose to reasonable alternatives to tunnels. Proponents of the California Water Fix ignore alternatives to tunnels, when far less expensive and environmentally destructive alternatives exist. One alternative, which the proponents have not considered in the document, is the Delta-Tulare Water Plan, which could provide a minimum of 1 million acre-feet of water storage in the old Tulare Lake bed with very little expense in infrastructure improvements. Information on this alternative is at: http://northdeltacares.org/2015/10/05/the-delta-tulare-water-plan/	Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1,FEIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.
2517	3	The California Water Fix will further degrade water quality in the Delta and violate the Clean Water Act. Salinity intrusion is already a problem for the western Delta. Taking freshwater from the top of the Delta system will exacerbate the salinity problem and violate the Clean Water Act. In the RDEIR/SDEIS document, Table 31-1, WQ:11 "Effects on electrical conductivity concentrations resulting from facilities operations and maintenance" is a "Significant and Unavoidable Adverse Impact" under CEQA and "Adverse" under NEPA – and this is after mitigation. Most of the Delta is federally designated prime farmland. Delta farmers cannot irrigate with salt water. Contaminating prime farmland with salt so that Sacramento River water can be exported to desert agricultural lands is a poor policy choice and should not be permitted.	The impact to electrical conductivity identified in this comment is for Alternative 4 of the BDCP. Alternative 4A is now the preferred alternative for California WaterFix, which would have less impact to water quality than Alternative 4. As shown by the impact assessment in Chapter 8, Water Quality, Alternative 4A would have a less than significant impact on assessed constituents, except for electrical conductivity (EC). The impact to EC would be less than significant with implementation of the proposed mitigation.
2517	4	The California Water Fix fails to meet the "co-equal goals" of the Delta Reform Act of 2009. The Delta Reform Act of 2009 declares that State policy must serve two "co-equal goals:" • Providing a more reliable water supply for California, and • Protecting, restoring, and enhancing the Delta ecosystem. These goals, the Legislature added, must be met in a manner that "Protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." With 50 "Significant and Unavoidable Adverse" impacts to the Delta under CEQA and 50 "Adverse" impacts under NEPA, the CA Water Fix fails to meet the policy of the "co-equal goals." It also violates the Legislature's mandate that the co-equal goals be met in a manner that "Protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." The CA Water Fix places an extremely onerous burden on residents of the Delta. Under this proposal, one region of the state would suffer 50 Adverse impacts for the benefit of other regions. Loss of prime farmland, coupled with increased salinity, is a "lose" for the agricultural economy and the people of the Delta. This fails the co-equal goals as required by the Delta Reform Act. On these grounds alone, the CA Water Fix should not be allowed to move forward as proposed.	Please refer to Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, for information on compliance of California Water Fix with the Delta Reform Act. Also, please refer to Appendix 3J, Alternative 4A (Proposed Project) Compliance with the 2009 Delta Reform Act, for information about how, because the proposed project is no longer part of a Habitat Conservation Plan, there is no need to comply with the Delta Plan. More information about compliance with the Delta Reform Act can also be found in Master Response 31.
2517	5	The California Water Fix violates California Water Code Section 85021. California Water Code Section 85021 states: 85021. The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved	The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. In fact, as a direct result of the extensive public comments and agency input, the water facility and conveyance options proposed as part of the project

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		regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts. If water agencies commit their funding to financing the enormous costs of the CA Water Fix, they will have less funding available to invest in local solutions such as recycling, conservation, stormwater capture and groundwater recharge. Californians will then be more dependent, not less, on Delta water supplies. The CA Water Fix increases reliance on the Delta for meeting California's water needs and therefore violates California Water Code Section 85021. Reclamation and DWR should prepare and circulate a new proposal that will include alternatives that reduce water exports and increase Delta flows for consideration by the public and decision-makers. Such alternatives have a far better chance of complying with the Delta Reform Act and the Clean Water Act.	changed significantly during the planning process in ways that reduce impacts in the Delta communities. Additional unique Alternatives that were proposed during review of Administrative Drafts of the BDCP and EIR/EIS were also considered and described, See Appendix 3A of the EIR/EIS and Section 4 of the RDEIR/SDEIS. Please see Master Response 4 for additional information on alternatives. The proposed project, identified in the RDEIR/SDEIS, no longer includes a HCP/NCCP and per policy set forward in the Delta Reform Act will now follow a different path to demonstrate consistency with the Delta Plan. For more information on the proposed project's compatibility with the Delta Reform Act and the Delta Plan see Master Response 31 and Appendix G of the RDEIR/SDEIS. Water recycling, storm water management, and desalinization are considered alternative sources of water supply and are discussed in section 1C.4 of Appendix 1C The use and combination of these water management measures and alternative sources of supply help local and regional water suppliers reduce their reliance on water from the Delta. Implementation of these demand management measures statewide will make achieving the proposed project's goals much more feasible but is not a substitute means for complying with the ESA. Demand management is a tool that will continue to be used by water agencies and individual water users as part of an integrated water management approach to water supply reliability regardless of whether and how the proposed project is implemented. Based on existing regulatory mandates as well as economic and environmental imperatives, State and regional/local efforts will continue to improve water use efficiency over that already achieved during the past few decades. Please refer to Master Response 6 (Demand Management) for additional information. Appendix E of the RDEIR/SDEIS, "Supplemental Information for U.S. Army Corps of Engineers Permitting Requirements", provides supplemental information needed to facilitate the environmental review for the U.S. Army Corps of Engineers' (USACE's) permitting processes under the authority of Sections 10 and 14 of the Rivers and Harbors Act (RHA) and Section 404 of the Clean Water Act (CWA) and to document the stage at which material will be available and presented.
2518	1	Please focus on retiring acidic and unproductive soils to be replaced by large solar projects.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The issue of retiring agricultural land is beyond the scope of the project as the Lead Agencies do not have local land use/zoning authority.
2518	2	Also, understand that sea levels will rise, and we should invest in levee infrastructure before saltwater inundation shuts down the levees and causes an influx of salt water to the San Joaquin Delta!	Refer to Appendix 6A regarding why levee improvements are not part of the proposed project. Also refer to Master Response 4 for details on the selection of alternatives and Master Response 3 for details on the project purpose and need.
2519	1	I am strongly opposed to the tunnels. It seems that this project is being pushed through an approval process that by design avoids public vote. Once the tunnels are in place the entire Delta ecosystem will be vulnerable to abuse and ultimate destruction. It is very clear that we cannot trust water transfer proponents to exercise any restraint for the sake of the environment.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The comment does not provide any evidence as to how the tunnels will adversely impact the Delta ecosystem related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2520	1	I oppose the Delta tunnel project.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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2521	1	We cannot hope to maintain a healthy estuary by taking fresher water out of an already struggling habitat which the Tunnels will do. We must protect the many benefits this estuary provides, especially with the effects of climate change.	Since the late 1800s, the Bay-Delta ecosystem has been substantially altered. Changes in key environmental attributes of the Bay-Delta have contributed to the current degraded state of the ecosystem and appear to be proximate causes of declines in desired fishes and increases in non-native species. California WaterFix is not intended to address all the factors that have contributed to the Delta's decline and briefly summarizes a few but not all of those factors. Many factors that have contributed to the decline of the Delta's ecosystem including the conversion of tidal marsh and floodplains to farmland, construction of levees and altering of tide flows, in-Delta and upstream water diversions, contaminant discharges, ammonia and nutrient discharges and changes to the food web, increases in water temperatures, and introduction of non-native and invasive species. The Delta will remain in a highly altered state for the foreseeable future and the project is not intended to address all the past harms or restore the Delta to a pre-altered state. The project would help to address the resilience and adaptability of the Delta to climate change through water delivery facilities combined with a range of operational flexibility. In addition to the added water management flexibility created by new water diversions and operational scenarios, the project would improve habitat, increase food supplies and reduce the effects of other stressors on the Delta ecosystem. Please refer to Master Responses 31 (Delta Reform Act), Master Response 19 (Climate Change), and Master Response 3 (Purpose and Need).
2521	2	The tunnels will cause increased contamination of municipal water and wells in the Delta counties--San Joaquin being one of them.	The potential for proposed project alternatives to affect water quality constituents of concern for municipal water supply uses in the project area is assessed in detail in Chapter 8, Water Quality, of the EIR/EIS. Where significant impacts to uses would occur due to the alternative, mitigation to lessen those impacts is provided.
2521	3	The tunnels will obstruct and even destroy the waterways now used for boating, marinas, and recreational activities that are a major part of our Delta economy, not to mention the quality of life for generations of local residents.	As described in Table 15-15 for Alternatives 4 and 4A in Chapter 15, Recreation, three marinas would be directly impacted by noise and visual disturbances from the preferred alternative: Lazy M Marina, Bullfrog Landing Marina, and Wimpy's Marina. Mitigation measures and environmental commitments would reduce the impacts on wildlife, visual setting, transportation, and noise conditions that could otherwise detract from the recreation experience. However, due to the dispersed effects on the recreation experience across the Delta, it is not certain that mitigation would reduce the level of these impacts to less than significant in all instances, and would therefore remain significant and unavoidable. When required, DWR would provide compensation to property owners for economic losses due to implementation of the proposed project. Please refer to Chapter 16, Socioeconomics, Impacts ECON-1, 3, and 5 regarding impacts to regional economics, changes in community character, and effects on recreational economics.
2521	4	I adamantly oppose the Delta Tunnels/California Water Fix project. Please do nor cause further harm to our state and Delta region. Explore other options including desalinization plants, water storage projects and others.	For more information regarding desalination please see Master Response 7.
2522	1	I am adamantly opposed to the Delta tunnels. This will not benefit the Delta nor anyone in Northern California. It is a massive expense for the taxpayers of California, a mega boondoggle in my opinion.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, , and salinity, the project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Refer to Master Response 3 (Purpose and Need) and Master Response 5 (Cost and Funding).
2523	1	I am writing to express my strong opposition to the proposed Delta Tunnels. There is no rational way to deny the huge damages that will be inflicted upon the Delta region if these tunnels are built. It is way too large a sacrifice to demand of one region to	The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it

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		get water to another region. Please do not do this to our environment. It just isn't right or fair. How can it even be considered?	would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline.
2524	1	A grave error ecologically. Please find a better solution.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. Refer to Master Response 3 (Purpose and Need) and Master Response 4 (Alternatives)..
2525	1	The health of this public Delta is already at risk. Over 7,000 wildlife and plant species are in distress, family farms, fisheries, public health, California's economy and the largest estuary in the western hemisphere of the Americas are all severely threatened.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2525	2	Conservation measures strictly enforced (i.e. Billy Bean of the Oakland A's published as one of the worst offenders discovered recently --- using 6,000 gallons of water daily to water his estate) will help greatly. Desalinization of sea water, more reservoirs, more dams and possibly El Nino can certainly have a positive impact on our statewide water problem.	For more information regarding desalination please see Master Response 7. For more information regarding demand management please see Master Response 6.
2525	3	Please vote no on the Twin Tunnels plan.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2526	1	How can you even consider building twin tunnels to take water away from farming in the valley. Common sense should tell you how destructive the building of such a massive project would destroy what is naturally here. I am opposed to the building of twin tunnels.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline.
2527	1	Please do not ruin the San Joaquin Delta ecosystem by constructing the Delta Tunnels.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2527	2	The southern Central Valley can be irrigated by the construction of dams in the southern Sierra Nevada at a far lower financial and ecological cost.	Please also see Master Response 37 regarding water storage. For more information regarding alternatives development please see Master Response 4.
2528	1	I disagree with Governor Brown's plan for tunnels under the Delta. Our farmers will have to learn to farm in more water-efficient ways. We are already using more water than we have. Super expensive fixes to this problem just push it back down the road. More water enables more farms which, in turn, demand more water. Higher flow charges are a must for conservation both among farmers and	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor any change in

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		residential users.	total water rights issued to DWR and Reclamation. Future water demands under the SWP and CVP water contract uses are consistent with water demand projections in the recent Urban Water Management Plans submitted to DWR which include approaches to meet the 20 percent per capita urban water use by 2020 and in the recent agricultural water management plans which include approaches to increase agricultural water use efficiency. The BDCP is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is consistent with other programs to provide continued investment by the State and other public agencies in conservation as well as other water supplies (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).
2529	1	I'm writing to oppose the latest Peripheral Canal scheme, aka the twin delta tunnels, that would send half of the Sacramento River's flow to Southern California to grow almonds, alfalfa and hay for export. California cannot afford to use its precious water this way.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor any change in total water rights issued to DWR and Reclamation. The north Delta intakes would not be allowed to remove large amounts of the flow from the Sacramento River (see Appendix 5A, Sections B and C). The total amount of water exported by month in each water year type for each action alternative is presented in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. As shown in Appendix 5A, Section C, the north Delta intake tunnels would not be fully utilized except for a few months in wet years. However, it is important to have the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years.
2529	2	Too much saltwater is already creeping east into the Bay Delta estuary, the largest on the west coast of the Americas, endangering natural habitat and drinking water supplies and the $5.2 billion delta farm economy. Cities in the North Bay rely on the Sacramento Delta for water. The tunnels will only exacerbate this process of saltification by removing the essential freshwater that keeps saltwater at bay.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. The potential for water conveyance operations to affect salinity conditions in the Delta (including Suisun Marsh) under existing conditions and future no action conditions, and with implementation of each project alternative (including conservation measures), is assessed in detail in Chapter 8, Water Quality, of the EIR/EIS for the salinity-related parameters chloride (Impact WQ-7) and electrical conductivity (Impact WQ-11). Where significant impacts to water quality would occur due to the alternative, mitigation to lessen those impacts is provided.
2529	3	The Delta Independent Science Board recently found the tunnel project's Environmental Impact Report inadequate: "The Current Draft . . . lacks completeness and clarity in applying science to far-reaching policy decisions."	The lead agencies believe that 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts, direct and cumulative, that project description is complete and satisfies the requirements of NEPA, that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies agree that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. Please refer to comment letters 1448 and 2546 to see responses to the Delta Independent Science Board's comments.
2529	4	One cannot hope to maintain a healthy estuary by taking more freshwater out of an already struggling habitat. With the effects of climate change increasing each year, we should protect the many benefits provided by the Bay Delta estuary for humans and the environment. The effects of salt water intrusion will be worse when the sea rises due to	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.

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		global warming.	
2529	5	As a taxpayer I also object to the use of bonds for this project whose interest will be paid from the state treasury while the benefits will accrue to agribusiness. While agriculture is a large part of the California economy, most of the state revenue comes from income and sales tax, corporate taxes are a small fraction of the total and agriculture pays a small part of the corporate taxes. Draining the Bay Delta of water and the treasury of money is not the way anticipate a drier future. Do not move forward with this lunatic twin tunnels scheme.	More than two-thirds of the residents of the state and more than two million acres of highly productive farm land receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the project proponents have no authority to designate what water is used for. For more information regarding cost and funding of the proposed project please see Master Response 5.
2530	1	Get rid of Brown	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2531	1	Before the tunnel project advances lets examine how CEQA came up the tunnel plan. CEQA starting basis is from the 1940's when California population was 9,000,000 and water was presumed to be an unlimited resource and environmental responsibility had little bearing on decisions being made. So the state started to engineer a water delivery system that fit well for the need of the times. Fast forward to 2015, California population has risen to 38,000,000 million and water has become a precious resource to be managed. During the ensuing years from the 1940's to 2015 something happened, Southern California and agriculture exploded outstripping the water resources that are available through an environmentally neutral delivery system. This is where CEQA has begun to address the problems of an overtaxed water supply. The assumption of CEQA is that, Southern California and agriculture must have the current amount of water and even more water in the future in order for agriculture and the health of the people of Southern California to maintain and grow. They are right, and it's this process that is killing the San Joaquin Delta. CEQA conclusion is the best way to address this dire need is to build twin tunnels to and continue the status quo, not exploring alternative water sources and not change the culture of how water is used.	This comment is on the merits of the project and water resources management in California, not on the content of this Final EIR/EIS or the environmental review process.
2531	2	Before the tunnel project moves any further 3 important solutions need to be implemented: 1. state wide conservation efforts requiring all farms to have drip irrigation systems installed, no more flood irrigation. All run off from urban areas is to be captured and introduced into the aquifer reservoirs. Build all new homes, and refitting of existing home where feasible, with grey water basins systems to capture water to be used for outdoor purposes.	It is important to note, as an initial matter, that the proposed project is not intended to serve as a state-wide solution to all of California's water problems and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Nor is the proposed project intended to solve all environmental challenges facing the Delta. Please see Master Response 6 (Demand Management) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the proposed project. Rather, the scope and purpose of the proposed project is much more limited. As explained in Chapter 2 Project Objectives and Purpose and Need of the Final EIR/EIS, the fundamental purpose of the proposed project is to make physical and operational improvements to the State Water Project (SWP) system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and Central Valley Project (CVP) south-of-Delta, and water quality within a stable regulatory framework with statutory and contractual obligations. Additional water storage was eliminated from consideration in the Draft EIR/EIS and RDEIR/SDEIS through the alternatives development and screening process (discussed in Appendix 3A, Identification of Water Conveyance Alternatives). As such, the proposed project does not propose storage as a project

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			component. Although the proposed project would be part of an overall statewide water system of which new storage could someday also be a part, Alternative 4A is a stand-alone project which demonstrates independent utility just as future storage projects would demonstrate. Please refer to Master Response 4 (Alternatives) and Master Response 37 (Storage) for additional information.
2531	3	Before the tunnel project moves any further 3 important solutions need to be implemented: 2. The of use desalination plants powered by wave, solar, and wind technology. The state needs to subsidize these efforts to get them off the ground.	For more information regarding desalination please see Master Response 7.
2531	4	Before the tunnel project moves any further 3 important solutions need to be implemented: 3. An education campaign making all people highly aware of the need to conserve, this should also be taught in schools so children might want to grow up to be part of the solution to future water shortages and the environmental problems caused by lack of good clean water. This solution needs to be in place and studied for 20 years, adjusting as necessary, to get the most out of our existing resources. In 20 years, if a tunnel is still needed, it can be built but possibly on a much smaller scale.	The commenter raises issues related the purpose and need for the proposed project. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Appendix 1C of the Final EIR/EIS, Demand Management Measures, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more information on demand management. Although components such as demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the State, they are beyond the scope of the project. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. For more information regarding purpose and need of the proposed project please see Master Response 3.
2532	1	The proposal to build twin tunnels under the Delta is not supported by the EIR. Nor is it in the best interests of the environment.	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility.
2532	2	Use the 95% decline in the salmon population in the Sacramento River as "the canary in the coal mine."	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2532	3	Please vote no on this proposal. It needs to be stopped now.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2533	1	This goes against nature's flow. The drought is manufactured by scientists working with government knowledge and military aid to manipulate weather for the benefit of the few who are trying to control the game. Come to your senses and start working for the good of all nature and humans (also a beautiful creative part of nature). These tunnels are one of the gambits of elite society manipulators to control all resources belonging to all of us. You regulators must start thinking for yourselves. Does this sound like a good idea?	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.

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		Absolutely not! Destroying nature and society for financial gain is out of style. My vote on the tunnel project is a resounding no.	
2534	1	I am completely opposed to the Delta tunnels. The salinity in the Bay will only get worse. The ability of the Bay to sustain its ecosystem and the creatures living in it would be greatly affected. This is a horrible idea which should never have even seen the light of day.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S.
2535	1	I have one comment. Use the Bond money to build more storage reservoirs and not tunnels. Without water to send through the tunnels it makes no since to spend our tax payer dollars in Northern California to send water to Southern California and cause a problem for our farmers and home owners in Northern California. If you do build them, you will soon find out that it is a big mistake causing problems for all water users in California including fish. You may also consider more desalinization facilities along the coast to supply the large cities like Las Angeles with water. Again, my vote is no to the Tunnels.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Appendix 1C of the Final EIR/EIS, Demand Management Measures, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more information on demand management. Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the State, they are beyond the scope of the project. Refer to Master Response 7 for information on why desalination was not included in the proposed project. For more information on why water storage was not considered as part of the proposed project please refer to Master Response 37 (Storage) and Appendix 1B, Water Storage, EIR/EIS.. Also, please see Master Response 3 for additional details on the project purpose and need.
2536	1	The Delta Independent Science Board recently found the controversial tunnel project's Environmental Impact Report inadequate. Governor Brown should be taking more time to review what they have to say about the long term possible impacts of this drastic measure on our precious water supply and the ecosystems of the Delta! The tunnels are too extreme to be a good solution for California. Stop and reconsider!	The lead agencies believe that 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts, direct and cumulative, that project description is complete and satisfies the requirements of NEPA, that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies agree that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS. [DWR INPUT: The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.] Please refer to comment letter 2546 to see responses to the Delta Independent Science Board's comments.
2537	1	No! This is ridiculous solution pushed by special interests.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2538	1	I have been following the so called Water Fix for over 50 years. This was bad science at the start and has not changed. It will not only destroy the Delta but the whole San Francisco Bay estuary. The major problems started when we began pumping water south to irrigate a desert. Since then the Delta has been on a major slide downhill. The Southern California interests that are backing this are only thinking of themselves and not of the state as a whole. The Delta has no extra water.	The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline.
2538	2	What I propose is building storage for water in Southern California to capture rain run off instead of having it flow to the ocean. Also desalinization works very well and is affordable	Appendix 1C of the Final EIR/EIS, Demand Management Measures, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more

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		for the Southern California interests as far as I am concerned. I vote no on the tunnels.	information on demand management. Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the State, they are beyond the scope of the project. Refer to Master Response 7 for information on why desalination was not included in the proposed project. For more information on why water storage was not considered as part of the proposed project please refer to Master Response 37 (Storage) and Appendix 1B, Water Storage, EIR/EIS. Please refer Master Response 3 for details on the project purpose and need.
2539	1	We agree there are environmental, economic and water export concerns, that is why we oppose the Delta Tunnels/California Water Fix (Alternative 4A) as it is not the answer. We oppose the Delta Tunnels.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5 for more information on costs and funding.
2540	1	I have been a faithful voter for over 70 years. Please tell me that the tunnels will not happen! [It] needs to be out in the open, not behind closed doors. Southern California should take care of itself. Example: All the water that rushes out to sea needs to stay in California as water from the river. Governor Brown needs to be redirected.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2541	1	Our Delta region was originally modified for beneficial use by the early settlers. The portion modified was small in relation to the total region and was put into use for the greater good of the region. In reality the ecosystem was modified but not significantly changed. Proponents say that the tunnels will not damage the area. This is not the case, which is supported by local citizens. The proposal really gives nothing back to the area, only some land and people scars. It only gives water to the South, and yes more dollars and votes to politicians/public agencies. The areas in which water is being shipped needs to find better ways to deal with their environment. Do not make this another Owen's Valley. The state already ships water south of the Delta and the more this area gets, the more it wants.	The commenter does not offer evidence as to how the tunnels would "damage the area". The proposed project was developed to meet the rigorous standards of the Clean Water Act and federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Based upon the modeling conducted to assess the effects on the aquatic species, the conclusion was that there were positive impacts when compared to the Future No Action Alternative. If the project is not implemented, the condition of the aquatic resources will be worse than if the project is implemented. Refer to Master Response 26 (Area of Origin) and Master Response 35 (MWD Water Supply).
2542	1	A total waste of $15 billion of taxpayer money without authorization from the taxpayers of the state. That same money could be used to generate new sources of water. The money would be better spent on recycling programs and desalination plants. Florida is a good example of this.	Appendix 1C of the Final EIR/EIS, Demand Management Measures, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more information on demand management. Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the State, they are beyond the scope of the project. Refer to Master Response 7 for information on why desalination was not included in the proposed project. For more information on why water storage was not considered as part of the proposed project please refer to Master Response 37 (Storage) and Appendix 1B, Water Storage, EIR/EIS. Please refer to Master Response 3 for additional details on the project purpose and need and Master Response 5 for information on cost and

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			funding of the proposed project.
2542	2	Destruction of the Sacramento-San Joaquin Delta ecosystem.	Since the late 1800s, the Bay-Delta ecosystem has been substantially altered. Changes in key environmental attributes of the Bay-Delta have contributed to the current degraded state of the ecosystem and appear to be proximate causes of declines in desired fishes and increases in non-native species. California Waterfix is not intended to address all the factors that have contributed to the Delta's decline and briefly summarizes a few but not all of those factors. Many factors that have contributed to the decline of the Delta's ecosystem including the conversion of tidal marsh and floodplains to farmland, construction of levees and altering of tide flows, in-Delta and upstream water diversions, contaminant discharges, ammonia and nutrient discharges and changes to the food web, increases in water temperatures, and introduction of non-native and invasive species. The Delta will remain in a highly altered state for the foreseeable future and the project is not intended to address all the past harms or restore the Delta to a pre-altered state.
2542	3	The project does not generate a single drop of new water.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. Water delivered to the SWP and CVP water contractors participating in proposed project would be within the existing contract amounts to serve agricultural lands that have been cultivated and existing and planned community populations. As described in Chapter 5, Water Supply, of the EIR/S, it is anticipated that climate change would result in more frequent and more severe rainfall events and less snowfall than under historic conditions. These rainfall events would result in periods of time when the capacity of the existing intakes would not be adequate. Therefore, the proposed project would provide the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase flows in the wet winter months when the river flows are high to improve conditions for aquatic resources. The water would be stored at locations south of the Delta during the high flow periods to allow reductions in deliveries in drier periods. The north Delta and south Delta intakes would only be used to divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements.
2542	4	The project robs much needed water from Northern California and 2,500 farmers who contribute $2 billion to California's economy each year.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. Senior water rights holders are not affected by implementation of action alternatives. The amount of water that DWR and Reclamation would be able to pump from the proposed north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the water contractors. Operations for the proposed project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process, as described in Chapter 5, Water Supply of the EIR/S.
2542	5	Severe impact on Delta and Northern California communities.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S.
2542	6	Once again, politicians in Sacramento want to make Northern Californians the sacrificial lambs of Southern California political interests, i.e. the interests of big Southern California corporate farms. If they want more water they need to pay for it themselves. You are asking Northern Californians to pay the bill in order to be robbed. We should move to create a separate state, which is what we will do id the project goes through. The people of California pay plenty of taxes, more than any other state. We deserve a better solution and	The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures). Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5 for more

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		a more prudent investment to address the State's water supply needs.	information on costs and funding.
2543	1	I am writing to express my strong opposition to all alternatives in the Bay Delta Conservation Plan (BDCP)/California WaterFix Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS) that propose construction of new diversions and tunnels under the Delta.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2544	1	Stop the Twin Tunnels! This project is too expensive ($60-80 billion), will destroy farmland (500,000 acres), will hurt the businesses associated with agriculture ($5.2 billion), will destroy our region's annual recreation economy ($750,000,000), will divert half the Sacramento River from the estuary, will denigrate my drinking water to unacceptable Clean Water Act standards (increase human carcinogens), will not deliver reliable water supply to the rest of California, will hurt the fish (those that pass through and native), does not account for the decreasing snowpack and water supply, and the tunnels will be dry probably 50% of the time.	The proposed project was developed to meet the rigorous standards of the Clean Water Act and federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Resource areas are addressed separately in the EIR/EIS under sections for each of the new project Alternatives, including water quality (Chapter 8), fish and aquatic resources (Chapter 11), terrestrial biological resources (Chapter 12), agricultural resources (Chapter 14), Recreation (Chapter 15), air quality and greenhouse gases (Chapter 22), and others. Where impacts are determined to be significant, environmental commitments and mitigation measures will be implemented to avoid and/or offset these effects, where possible. In cases where it is not possible to offset those significant impacts (see Chapter 31, Other CEQA/NEPA Required Sections for a complete list of significant and unavoidable impacts), that information will be provided in the Statement of Overriding Considerations and will be acted on by the decision makers with each lead agency to determine if the project should still be approved or not. Overall there were found to be no significant economic effects of the proposed project associated with agriculture or recreation. Refer to Chapter 29 Climate Change for information on how the proposed project proposes to improve resiliency and adaptability of the Delta to Climate Change. See also Master Response 19 (Climate Change and Greenhouses Gases). Finally, refer to Master Response 5 regarding the cost of project implementation and Master Response 47 regarding drought and the proposed project.
2544	2	I am outraged that this information has been so hidden; the general public does not seem to know about what will happen if the twin tunnels are built, unless one has an intense interest. It was hard to find the comment line. When I found it, it was with a company which is involved with building the tunnels.	As state agencies, the Department of Water Resources and the California Natural Resources Agencies have an obligation to provide the public with educational information that is rooted in fact, based on reasonable assumptions supported by facts and expert opinions substantiated by facts. Doing so for a project of large scale and complexity can be a challenge. The BDCP website, blog, Your Questions Answered, and social media platforms have been the primary vehicle for communicating important project information and correcting misinformation. Brochures, factsheets, webinars and videos are other tools the State has employed to educate the public about the proposed BDCP and the EIR/EIS process. Representatives from the State have also held numerous meetings and briefings around the state to educate stakeholders and provide them with critical information about project developments and the EIR/EIS process. Brochures, factsheets, webinars, reports and other information is kept on the project website, www.BayDeltaConservationPlan.com and is available for review. Historical materials remain available for review and are labeled as achieved or superseded. For more information on the public outreach efforts made during the BDCP and EIR/EIS process, please see Master Response 40. More information on how DWR has developed the project in an open and transparent manner is provided in

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			Master Response 41.
2544	3	Today, I just found out that the boundaries for the underground water are being changed. Please inform the general public and then let us vote on all of this. Do we have a secret government or a democracy?	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2544	4	We need conservation, groundwater recharge, recycling, storm water capture and new technologies; not tunnels!	Appendix 1C of the Final EIR/EIS, Demand Management Measures, describes conservation, water use efficiency, and other sources of water supply including desalination. Refer to Master Response 6 for more information on demand management. Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the State, they are beyond the scope of the project. For more information on why water storage was not considered as part of the proposed project please refer to Master Response 37 (Storage) and Appendix 1B, Water Storage, EIR/EIS. Also, please see Master Response 3 for additional details on the project purpose and need.
2544	5	My City Council voted against the Twin Tunnels!	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2545	1	Trusting your individual and collective thoughtful deliberation and consideration to balance and protect California water. Important and critical restore and protect ecology ,environment and future human generations of inhabitants. Please reject. No Delta Tunnels.	The comment does not raise any environmental issues related to the environmental analysis. Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2546	1	We [Delta Stewardship Council] recognize that the Council eventually may hear an appeal of DWR's determination that the WaterFix is consistent with the Delta Plan. Should such an appeal occur, the Council will be relying on DWR's certification of consistency as well as its administrative record supporting its certification; the Council's comments on the Recirculated draft EIR/S will not have a predecisional effect on the Council's determination with regard to any possible future appeal.	The Lead Agencies appreciate the Delta Stewardship Council's involvement as a responsible agency in the CEQA/NEPA process and look forward to continued consultation. For more information regarding Delta Reform Act requirements for the BDCP and the proposed project (4A) please see Appendix 3I and 3J of this Final EIR/EIS, respectively.
2546	2	Delta Reform Act requirements: Our [Delta Stewardship Council's] comments suggest several additional improvements to address the requirements of Water Code section 85320(b)(2) concerning the BDCP's EIR/S's review and analysis of important Delta resources.	Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, describes how Alternatives 1 through 9 initially presented in the Draft BDCP EIR/EIS were prepared in a manner to comply with the 2009 Delta Reform Act, including Water Code section 85320(b)(2). The proposed project (Alternative 4A) and Alternatives 2D and 5A are not being proposed to fulfill the requirements of a habitat conservation plan/natural community conservation plan as described in this Water Code section referenced in this comment. However, these alternatives were developed with consideration of the requirements of the Delta Reform Act, as described in Appendix 3J of this Final EIR/EIS.
2546	3	Effects on opportunities to restore habitats in the Cosumnes-Mokelumne high priority habitat restoration area: The new Alternatives 4A (California WaterFix), 2D and 5A, while reducing impacts on Delta communities and their residents' quality of life, also propose new features, including a new forebay and reusable tunnel material storage site, barge landing,	This Final EIR/EIS evaluates the potential for resource impacts related to all of the alternative components and these results are presented in various resource chapters, such as Chapter 12, Terrestrial Biological Resources, Chapter 13, Land Use, Chapter 14, Agricultural Resources and Chapter 18, Cultural Resources. The potential effect on the Cosumnes –Mokelumne confluence and portions of the San Joaquin River

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		and temporary access road adjoining Snodgrass Slough and an outlet tower/safe haven and temporary access road on the McCormack Williamson Tract. These features' compatibility with opportunities for habitat restoration within this area, as called for by the Delta Plan's regulatory policies (CCR 5007), should be assessed.	floodplain from project facilities is incorporated and aggregated into these analyses combined with other effects related to other project features. Land Use Chapter 14, Section 13.3.3.9, states; "any project-related activities that would interfere with opportunities to restore habitat on in the Cosumnes-Mokelumne Confluence Priority Habitat Restoration Area or San Joaquin River Floodplain Priority Habitat Restoration Area will be mitigated to the extent feasible, through further refinements to the preferred alternative, or determined by DWR in consultation with fish and wildlife agencies, as described in section 5007 of the Delta Plan". DWR has actively coordinated with the Delta Stewardship Council and will continue this collaboration during the planning and implementation process to ensure Delta Plan priority restoration areas are not adversely affected by the proposed conveyance facilities.
2546	4	Avoiding or better mitigating impacts to water quality, wetlands and other aquatic habitats, and the unique values of the Delta: Some adverse effects of the California WaterFix to the Delta's unique values may be unavoidable, but better mitigation can reduce harm to agriculture, recreation, communities, aesthetics, and cultural resources, so that the magnitude of change is more compatible with protection of the Delta as an evolving place.	The purpose of this Final EIR/EIS is to analyze the impacts of the alternatives on the environment under the legal framework of NEPA and CEQA. The analysis covers 26 resource areas within the plan area. Although "Delta's unique values" is not a specific topic area, this Final EIR/EIS nonetheless addresses many of the concerns raised by the Council's by virtue of the analysis required under CEQA and NEPA. The impacts from construction activities, for example, are discussed across all the resource chapters. Please see Master Response 24 Delta As Place. Mitigation measures proposed to reduce the significant impacts of the action alternatives are intended to reduce impacts to less-than-significant levels for the purpose of CEQA and not adverse levels for the purpose of NEPA analyses. In certain cases, as disclosed in this Final EIR/EIS, where the uncertainty exists as to whether all of the impacts (i.e. agricultural or aesthetic) could be fully reduced to less than significant/not adverse levels, impacts were determined to be significant and unavoidable. These conclusions do not reduce the requirement to reduce the significant impacts to the extent possible and in fact mitigation measures will be applied to reduce physical effects on the environment.
2546	5	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations: Delta Plan and Delta Reform Act consistency. Issue: If the California WaterFix is ultimately chosen as the project, DWR will need to certify that the California WaterFix is consistent with the Delta Plan. In addition, because the BDCP as originally proposed is still a viable alternative, the BDCP EIR should fulfill the requirements of \/Vater Code section 85320(b)(2). Recommendation: Continue consultation with Delta Stewardship Council staff as the final EIR/S is completed and certification of consistency with the Delta Plan is contemplated.	For more information regarding Delta Reform Act requirements for the BDCP and the proposed project (4A) please see Appendix 3I and 3J of this Final EIR/EIS, respectively. Also please review Master Response 31. As recommended, DWR has continued consultation with Delta Stewardship Council staff through the completion of this Final EIR/EIS and will continue through possible certification of consistency.
2546	6	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations: Comprehensive project description. Issue: The final EIR/S needs a project description that is complete. Important operational aspects of the preferred project are contingent upon the results of Endangered Species Act and State Water Resources Control Board consultation processes. Recommendation: The final EIR/S's project description should be consistent with and fully informed by regulatory filings for the project.	The Lead Agencies have made the final decisions regarding the selection of an alternative (and therefore, a project description) for the purposes of CEQA and NEPA. Operational scenarios have been analyzed in the ESA Section 7 by USFWS and NMFS under the federal Endangered Species Act and by CDFW under the California Endangered Species Act. Additionally the State Water Resources Control Board is currently reviewing all the pertinent information in the Change Petition Hearing and will make decisions accordingly. These agency determinations will set the range of operational scenarios for the proposed project. See Section 3.6.4.2, North Delta and South Delta Water Conveyance Operational Criteria of this Final EIR/EIS, for an updated discussion on the proposed project's operational aspects.
2546	7	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations:	An EIR/EIS does not call for a comprehensive summary of adaptive management principals. However, adaptive management has been, and will continue to be, a key component to this project. For a discussion in this Final EIR/EIS about the adaptive management and monitoring program refer to Section 3.6.4.4, Chapter

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		Adaptive management. Issue: The project needs an adequate adaptive management program. Recommendation: Consult with the Delta Science Program and affected regulatory agencies to describe an adaptive management program.	3. Please note that the draft, Adaptive Management Framework for the California Water Fix and Current Biological Opinions on the coordinated operations of the Central Valley and State Water Projects, is under development (described below) and outlines the ongoing adaptive management of operations of the Central Valley Project (CVP) and State Water Project (SWP) including future implementation and operation of the California WaterFix (CWF). The Delta Reform Act of 2009 identified adaptive management as the desired approach to reduce the ecological uncertainty associated with the management of the Sacramento-San Joaquin Delta system. The Federal and State water operations agencies [Bureau of Reclamation and Department of Water Resources] and the State and federal fisheries agencies [US Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Wildlife agree that adaptive management is the approach best suited to improving the management of the Delta and its resources. Together, the agencies have committed to ongoing adaptive management under the current Biological Opinions of the combined operations of the Central Valley Project and State Water Project, as well as the effects of future operations under California WaterFix (CWF). The Adaptive Management Framework for the California Water Fix and Current Biological Opinions on the coordinated operations of the Central Valley and State Water Projects serves to set forth the Adaptive Management Framework by which the agencies will operate to reduce uncertainty and improve the performance of Central Valley water operations under the current Biological Opinions and CWF. The Adaptive Management Framework for the California Water Fix and Current Biological Opinions on the coordinated operations of the Central Valley and State Water Projects also further highlights significant new investments in related research, monitoring and modeling needed to support this management effort. The Delta Science Program has particular expertise and experience organizing and facilitating independent scientific reviews. It also has primary responsibility for developing and implementing the Delta Science Plan. The Delta Science Program is expected to support California WaterFix in the review of monitoring and research methods and results, and to provide technical support to the adaptive management process. The agencies have initiated and will continue consultation with the Delta Stewardship Council and the Delta Science Program regarding development of an adaptive management plan for long-term operations of the CVP and SWP as well as a robust science program to implement the adaptive management plan.
2546	8	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations: Water Quality. Issue: Implementation of measures proposed to mitigate potential impacts to water quality for in-Delta water users may prove cumbersome and protracted. Recommendation: Identify a water quality monitoring and compliance program in the final EIR/S and/or its mitigation monitoring and reporting plan. Improve the process and better balance the burdens for identifying and implementing operational changes or other corrective actions to mitigate adverse effects on in-Delta water users or the environment.	The process for identifying impacts due to operations of the conveyance facilities is provided in Section 8.3.1, Methods for Analysis, of Chapter 8, Water Quality. Within this section is a subsection titled "Real-time Operations of the SWP and CVP" that acknowledges that water system operations take into account conditions that cannot be reflected in the hydrologic modeling tools available for assessment of project effects. The projects are operated to D-1641 water quality standards, with compliance determined at established monitoring locations throughout the Delta. Also see Section 8.1.8.2, Selection of Monitoring Locations for Characterization of Water Quality, of Chapter 8, Water Quality, for a discussion on locations of water quality monitoring locations.
2546	9	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations: Impacts on the Opportunities to Restore Delta Habitats. Issue: Alternatives 4A, 2D, and 5A include both permanent and temporary features within areas near the Cosumnes-Mokelumne confluence and the lower San Joaquin River floodplain which the Delta Plan identifies as high priorities for ecosystem restoration. Recommendation: More fully assess	See response to comment 2546-3, regarding opportunities to restore Delta habitats.

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		how project features near the Cosumnes-Mokelumne Confluence and the lower San Joaquin River floodplain may affect planned and potential habitat restoration in these areas. Relocate incompatible features, if feasible, and recommend measures to mitigate conflicts that cannot be avoided.	
2546	10	Relative to our [Delta Stewardship Council's] review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations: Mitigation of other effects on wetlands and aquatic habitats. Issue: Damage to wetlands, aquatic habitats, and associated wildlife and fish populations should be avoided and/or minimized before compensatory mitigation for unavoidable losses is considered. Recommendation: More carefully describe mitigation for impacts to wetlands and aquatic habitats.	It should be noted that addressing some mitigation more programmatically is appropriate when the specifics of certain impacts cannot reasonably be determined because, for example, they are dependent on future actions. Where appropriate, performance standards are set forth for such measures. Please also see Master Response 2 for a discussion of the project vs. program level analysis in this Final EIR/EIS and why this is adequate and allowed under CEQA and NEPA. See response to comments 2546- 31 and 32, for more detail on wetland mitigation discussions.
2546	11	Evaluation and mitigation of impacts to unique Delta values. Issue: The recirculated draft EIR/S does not adequately evaluate, avoid, or mitigate the cumulative impacts of the California WaterFix alternatives to agriculture, recreation, community character, aesthetics, and cultural resources. In some cases, identification of feasible and enforceable measures to mitigate these impacts is deferred. Recommendation: The final EIR/S should more thoroughly identify impacts to agriculture, recreation, community character and cultural resources, further consider opportunities to avoid them, and offer specific, feasible, and enforceable mitigation measures for unavoidable impacts. If specific, feasible, and enforceable mitigation measures for adverse effects cannot be identified at this time, specify performance standards that will mitigate the project's significant impacts.	See response to comment 2546- 4 regarding Delta values.
2546	12	Delta Plan and Delta Reform Act Consistency: Our [Delta Stewardship Council's] prior letter on the draft EIR/S identifies information that should be included in the final EIR/S to comply with Water Code section 85320. Appendix G of the partially recirculated draft EIR/S provides a useful overview of how DWR anticipates it will approach certification of the California WaterFix's consistency with the Delta Plan in conformance with Water Code section 85225. To ensure the project uses the best available science (23 CCR section 5002(b)(3)) and includes adequate provisions to assure implementation of adaptive management {23 CCR section 5002(b)(4)), we urge you to pay special attention to the Independent Science Board's reviews of the draft and partially recirculated draft EIR/Ss. Our comments on both the draft EIR/S and the partially recirculated draft EIR/S identify mitigation measures that may need improvement (23 CCR section 5002(b)(2)). Other comments call attention to other aspects of the project where additional information or consideration of further alternatives or mitigation measures may be important to certification of the project's consistency with the Delta Plan. As the final EIR/S is completed, Council staff anticipates continuing to consult with DWR as provided in Water Code section 85225.5 and 85320(c).	Please note that the Lead Agencies have reviewed and responded to the Independent Science Board comments on the Draft and RDEIR/SDEIS. As recommended, DWR will consult with Council staff as provided in Water Code section 85225.5 and 85320(c). Please see Master Response 31.
2546	13	Comprehensive Project Description An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational	At the time of the writing of this Final EIR/EIS, the California WaterFix BiOp has not been issued, Appendix 5E, Supplemental Modeling Requested by the State Water Resources Control Board Related to Increased Delta Outflows, and Appendix 5F, Comparison of FEIRS Alternative 2D, 4A, and 5A Modeling Results to RDEIR/SDEIS Modeling Results, present a range of operational scenarios to depict potential operations that are anticipated to be approved during subsequent environmental permitting. An adaptive management program, which includes a monitoring and reporting program, as described in Section 3.6.4.4, of this Final

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		impacts because: Many key factors are contingent upon the results of Endangered Species Act and State WaterResources Control Board consultation processes.	EIR/EIS, will be implemented to address uncertainty by developing additional science during the course of project construction and operation to inform and improve conveyance facility operations. The initial range of operations that is expected to be authorized through the Section 7 consultation and 2081(b) permit processes is assumed to range between operational scenarios H3 and H4 at the early long-term time period. In order to facilitate an efficient analysis of impacts associated with a potentially large range of different operations that could be selected between H3 and H4, the analysis of Alternative 4A utilized scenario H3 plus additional spring outflow (H3+) as an operational impact analysis starting point, to be consistent with the assumptions in the BA, which were being completed at the time of the Alternative 4A analyses. While the analysis for Alternative 4A in the resource chapters utilizes H3+ modeling results, actual operations will ultimately depend on the results of the adaptive management program. Operations between H3 and H4 have been fully analyzed for Alternative 4A in this Final EIR/EIS. Appendix 5E (Supplemental Modeling Requested by the State Water Resources Control Board Related to Increased Delta Outflows) includes the results of H3 and H4 modeling. Modeling information for Alternative 4A with the H1 and H2 scenarios (which is the same as Alternative 4 at ELT) is provided in Appendix 11G, Supplemental Modeling Results at ELT for Alternative 4 at H1 and H2. Continued consultation with the Delta Stewardship Council and Delta Science Program regarding the proposed project's Collaborative Science and Adaptive Management Program (AMMP) will help address issues regarding the uncertainty of operations.
2546	14	Comprehensive Project Description An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational impacts because: Decision criteria and the type and range of operational responses to be utilized by the Real Time Operations (RTO) Team have not been clearly defined or are not provided in the recirculated draft EIR/S. These criteria will not be available until publication of the final EIR.	The extent to which real time adjustments that may be made to each parameter related to these facilities shall be limited by the criteria and/or ranges is set out in Chapter 3, Table 3-7. RTO will be implemented to maximize water supply for CVP/SWP, subject to providing the necessary protections for listed species, through the existing decision-making process and related technical work teams. Continued consultation with the Delta Stewardship Council and Delta Science Program regarding the proposed project's Collaborative Science and Adaptive Management Program (AMMP) will help address issues regarding the uncertainty of operations. See Section 3.6.4.3, of this Final EIR/EIS, for an updated discussion on the Real-Time Operational Decision-Making Process and Section 3.6.4.4, of this Final EIR/EIS, for an updated discussion on the Adaptive Management and Monitoring Program.
2546	15	Comprehensive Project Description An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational impacts because: The recirculated draft EIR/S Section 4.1.2.4 indicates that the collaborative science and adaptive management processes will be relied upon to identify, assess, and develop necessary changes in the new facility and existing south Delta operations. As the ISB [Independent Science Board] points out, these processes are not yet well-described and often take many years to implement, particularly in a dynamic ecosystem with multiple stakeholders. The timeliness and results of these program processes could substantially affect the level of impact.	The Lead Agencies acknowledge that uncertainty is inherent in any planning effort of this geographic and temporal scale. However, DWR strived to use the best available science throughout the effects analysis, consistent with the requirements of the ESA. Additionally, the official public review process for the proposed project provides an opportunity for formal public comment on the proposed project and project alternatives. Public and agency comments on the public draft have led to further refinement of the proposed project, as evidenced in the RDEIR/SDEIS. See response to comment 2546-7, regarding adaptive management. For information on operational criteria, please see Master Response 28.
2546	16	Comprehensive Project Description An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of	See response to comment 2546-15.

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		uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational impacts because: The importance of monitoring is discussed with respect to evaluating operational impacts; however, no information is provided on the objectives, types, geographic distributions, data management, assessment and reporting for the monitoring program. Presumably the monitoring requirements will be developed through the consultation and permitting process.	
2546	17	Comprehensive Project Description An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational impacts because: Changes in operational criteria are unlikely to benefit all special status species equally and may actually be detrimental to some special status species seasonally or geographically. The same will hold true for impacts to beneficial uses of the Delta water. How these decisions will be weighted or prioritized is a complex process that is not addressed in the recirculated draft EIR/S.	This Final EIR/EIS analyzes project alternative impacts to fish (Chapter 11), water supply (Chapter 5), water quality (Chapter 8), and surface water (Chapter 6), among others. Operating criteria under the proposed project, Alternative 4A, were developed to benefit and minimize potential impacts to fish species, particularly during the fall for Delta smelt and spring for longfin smelt. Real-time operations at the north Delta diversions are also available to minimize and avoid project impacts to migrating salmonids. In addition, operating criteria also incorporates existing water quality requirements in the Delta; the proposed project will be required to operate in way that is consistent with applicable water quality requirements (e.g. D-1641), including those that may be issued through the Water Quality Control Plan Update. Continued consultation with the Delta Stewardship Council and Delta Science Program regarding the proposed project's Collaborative Science and Adaptive Management Program (AMMP) will help address issues regarding the uncertainty of operations. For more information on real-time operations and decision-making processes under the Collaborative Science and Adaptive Management Program, please see Section 3.6.4.4, of this Final EIR/EIS.
2546	18	The partially recirculated draft EIR/S describes several operational scenarios with criteria that bookend a range of outflows and other parameters. Judging the reasonableness of the range of operational criteria that will guide project operations is difficult because, as discussed in Chapter 5 Water Supply and in Appendix 5A BDCP EIR/S Modeling, at this stage of the environmental assessment and permitting process there are still a large number of unknowns from a water supply standpoint. The two operational scenarios proposed, providing flows to meet Fall X2 objectives (H3) and providing enhanced spring outflows together with flows to meet Fall X2 objectives (H4), provide outcomes related to Delta exports, Delta outflow and biological opinion flow criteria that meet the project objectives over a range of water year conditions. In general, focusing on the H3-H4 scenarios provides a range of operational conditions that will facilitate the consultation and permitting processes. The biological assessments being prepared for the project's Endangered Species Act consultation can inform more detailed analysis of operational impacts to the Delta ecosystem associated with these scenarios. To assure the adequacy of the preferred alternative's description, the final EIR/S should fully consider insights gained from consultation with federal and state Endangered Species Act agencies and with the State Water Resources Control Board about the project's Clean Water Act 401 certification and its proposed change in the SWP's point of diversion. The range of project operations should be described with sideboards that reflect reasonably foreseeable regulatory outcomes.	See response to comment 2546-13, regarding operational scenarios.
2546	19	Adaptive Management: Adaptive management should be integral to the description of the California WaterFix initiative because it is central to operational decision-making, evaluation of the efficacy of the compensatory habitat restoration that mitigates impacts to wetlands and other fish and wildlife habitats, and assesses the need for adjustment in the flow criteria for the north	Commitments to adaptive management and collaborative science will be secured through a MOA between DWR, Reclamation, the public water agencies and key stakeholders, CDFW, NMFS, and USFWS. Details of the collaborative science and adaptive management process, including adaptive management decision-making, an organizational structure for adaptive management decisions, and funding for collaborative science will be developed and incorporated through the MOA, as needed.

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		Delta diversions. DWR's certification of California WaterFix's consistency with the Delta Plan will need to demonstrate the adequacy of the project's adaptive management program (23 CCR 5002(b)(4)). The partially recirculated draft EIR/S's description of substantive BDCP Revisions (Appendix D) does not provide important information about adjustments of the adaptive management program for the California WaterFix alternative, despite significant differences in scope and implementation features from the BDCP. The adaptive management program should include, as the ISB [Independent Science Board] recommends, species-specific thresholds and timelines for action that address both water management and mitigation of construction impacts; an Adaptive Management Team that includes the membership from the State Water Resources Control Board in addition to the agencies described in the partially recirculated draft EIR/S's Section 4.1.2.4; and as the ISB urges, describe the commitments of funding that effective science-based adaptive management will require.	See response to comment 2546-7, regarding adaptive management.
2546	20	Appendix D includes a new requirement that if the proposed Adaptive Management Team recommends changing a conservation measure or biological objective, it needs to provide "an analysis of the means by which the adaptive resources available to support adaptive management actions will be used to fund the proposed change, if applicable" (Appendix D, page D.3-133). It is not clear if the Adaptive Management Team needs to identify a funding mechanism for any proposed changes. The $450 million maximum for the Adaptive Management Fund included in 2013-14 version of the BDCP is omitted from the revised Appendix D. However, with the removal of the text, it is not clear if there is no limit or if there is a minimum amount in the fund. With key decisions about the preferred alternative impending, now is the time to address these and other long-deferred decisions about adaptive management of the project.	The comment is on Appendix D of the RDEIR/SDEIS, which discusses revisions to the Draft BDCP. Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A. Please see response to comment 2546-7, regarding adaptive management funding.
2546	21	Water Quality: The Delta Plan recognizes that managing the Delta's resources to accomplish the coequal goals will be a "balancing act." "Conditions that affect water quality must be managed and balanced in a way that allows these goals to be met simultaneously. When one use is protected, steps must be taken to minimize impacts on other uses." (Delta Plan pg. 212). The [Delta Stewardship] Council's previous comments recommended improving the assessment and mitigation of impacts to water quality. The partially recirculated draft EIR/S responds partly to these comments with its additional analysis of selenium and mercury and more careful evaluation of alternatives' effects on salinity and Mycrocystis. We appreciate this additional analysis and alternative 4A's retention of the current salinity (EC) [electrical conductivity] compliance point at Emmaton. Impacts to water quality for both in-Delta water users and ecosystem purposes appear reduced from those forecast in the draft EIR/S.	The Lead Agencies appreciate the Delta Stewardship Council’s involvement in the CEQA/NEPA process.
2546	22	We [Delta Stewardship Council] noted the statement during DWR's August 14, 2015 presentation to the ISB [Independent Science Board] that the models presented in the recirculated draft EIR/S are comparative and not predictive. Therefore, their appropriate and intended use is to allow comparisons between the No Action Alternative and the other alternatives, rather than predicting the actual performance of the California WaterFix. If that is the case, then the partially recirculated draft EIR/S may have limited potential to draw firm conclusions regarding potential impacts on beneficial uses of water by in-Delta water users or aquatic organisms and habitats.	Because it is simulating hypothetical conditions, CALSIM II, one of the models used to support the water quality assessment in Chapter 8, Water Quality, is not calibrated and cannot be used in a real-time predictive manner. CALSIM II results are intended to be used in a comparative manner, which allows for assessing the changes in the CVP/SWP system operations and resulting incremental effects between two scenarios. CALSIM II and the other models used to support the water quality assessment (e.g., DSM2) provide the ability to ascertain the degree and direction in which each alternative analyzed in the EIR/S would affect hydrologic, hydrodynamic and, thus, water quality constituent concentrations, and whether concentrations would be more or less adverse relative to baseline conditions. Thus, the use of the models is “predictive” in the sense that the results tell us whether a particular alternative would contribute to an increase or

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			decrease in a constituent concentration, and whether the magnitude of that change may contribute to additional degradation or exceedances of a water quality standard to the degree that beneficial uses may be adversely affected. For example, with electrical conductivity (EC) addressed in Impact WQ-11 for all alternatives in Chapter 8, compliance with Bay-Delta Water Quality Control Plan objectives was assessed. The modeling results for EC compliance and EC levels not predictive of actual EC that would occur under a particular alternative, but the results can be used to determine if the alternative would improve or make worse EC at Delta compliance locations, and whether there would be an increased risk of EC objective exceedance that may need to be addressed through real-time operations. These changes form the basis of the impact calls and mitigation. Real Time Operations (RTO) Team decisions are expected to be needed during at least some part of the year at the head of Old River gate and the north and south Delta diversion facilities. The RTO Team in making operational decisions that depart from the criteria used in the modeling will take into account upstream operational constraints, such as coldwater pool management, instream flow, and temperature requirements. The extent to which real time adjustments that may be made to each parameter related to these facilities shall be limited by the criteria and/or ranges is set out in, Chapter 3, Description of Alternatives, Table 3-7. RTO will be implemented to maximize water supply for CVP/SWP, subject to providing the necessary protections for listed species, through the existing decision-making process and related technical work teams. See Section 3.6.4.3, of this Final EIR/EIS, for an updated discussion on the Real-Time Operational Decision-Making Process.
2546	23	The partially recirculated draft EIR/S does not describe the process for identifying operational water quality impacts or the operational changes that would be implemented as corrective actions. A water quality monitoring and compliance program should be described in the final EIR/S and its mitigation monitoring and reporting plan.	See response to comment 2546-8, regarding water quality monitoring.
2546	24	Mitigation measures should propose effective responses if water quality objectives established for the project are violated. The potential mitigation measures referenced in the partially recirculated draft EIR/S and outlined in Section 3B.2.1 of the draft EIR/S place much of the burden on in-Delta water users to identify water quality problems and develop solutions as opposed to having the project proponent assume this burden. The document indicates the project's proponents are committed to assisting in-Delta municipal, industrial, and agricultural water purveyors that may be subject to significant water quality impacts from project operations. The introductory paragraph, however, indicates that alternatives would be developed by the in-Delta water users with input from the project proponents after a thorough investigation and completion of environmental review. The mitigation measures referenced by the recirculated draft EIR/S do not appear to account for the potential adverse effects to in-Delta water users during the time that water quality impacts are investigated and assessed; solutions are evaluated and designed; environmental assessment is performed; permits are acquired; and remedial solutions are implemented. Given the typical timeframe to accomplish these steps for water projects in the Delta, the financial and operational impacts as well as the environmental impacts associated with reoperation or relocation of these diversions could be substantial.	See Appendix 3B.3.1, Agricultural Water Purveyors in Developing Methods to Reduce Potential Water Quality Effects, for a discussion about assisting in-Delta municipal, industrial, and agricultural water purveyors that will be subject to significant unavoidable water quality effects from operation of Conservation Measure 1 (CM1) and effects on dissolved organic carbon (DOC) due to implementation of Conservation Measures 2-22 (CM2–21). The methods used for this investigation and monitoring, along with the conclusions regarding the nature and extent of those effects on water treatment or delivery, would be subject to agreement between the Lead Agencies and the affected water purveyors. This commitment would supplement, rather than supersede, the commitments set forth in Mitigation Measures WQ-5, WQ-7, WQ-11, and WQ-18 (presented in EIR/EIS Chapter 8, Water Quality).
2546	25	Impacts on the Opportunities to Restore Delta Habitats: Restoration of Delta habitat areas is a key to enhancement of the Delta ecosystem consistent with the coequal goals of the Delta Reform Act and the purposes of the BDCP. To encourage restoration, both the BDCP and the Delta Plan identify areas within which habitat	Although Alternatives 4A, 2D, and 5A include only those habitat restoration measures needed to provide mitigation for specific regulatory compliance purposes, habitat restoration is still recognized as a critical component of the state's long-term plans for the Delta. Such larger endeavors, however, will likely be implemented over time under actions separate and apart from these alternatives. The primary parallel

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		restoration is encouraged. These areas, which are similar in both plans, were selected because they provide promising sites for habitat restoration on less subsided flood basins, river corridors, and brackish marshes at appropriate elevations on the Delta's perimeter. Because locales like these that are suitable for restoration are not common, maintaining them in uses compatible with potential future restoration is important. That is why a Delta Plan regulatory policy (23 CCR section 5007) provides, in part: (a) Within the priority habitat restoration areas . . . significant adverse impacts to the opportunity to restore habitat . . . must be avoided or mitigated. (b) Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat. . . . (c) Impacts referenced in subsection (a) shall be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat. . . . Mitigation shall be determined, in consultation with the California Department of Fish and Wildlife, considering the size of the area impacted by the covered action and the type and value of habitat that could be restored on that area. . . . The Delta Plan encourages mitigation by allowing temporary uses with requirements for subsequent removal and cleanup afterward to protect opportunities for habitat restoration, elevation of structures so that water can flow underneath to allow restoration of aquatic habitats dependent on tides or periodic flooding, or location of permanent structures on the edge of habitat restoration areas, rather than in the middle, to improve opportunities for habitat restoration (Delta Plan Figure 4-7. p. 150).	habitat restoration program is called California EcoRestore (EcoRestore), which will be overseen by the California Resources Agency and implemented under the California Water Action Plan. Under EcoRestore, the state will pursue restoration of more than 30,000 acres of fish and wildlife habitat by 2020. These habitat restoration actions will be implemented faster and more reliably by separating them from the water conveyance facility implementation. Proposition 1 funds and other state and public dollars will be directed exclusively for public benefits unassociated with any regulatory compliance responsibilities. Additional priority restoration projects will be identified through regional and locally-led planning processes facilitated by the Delta Conservancy. Plans will be completed for the Cache Slough, West Delta, Cosumnes, and South Delta. Planning for the Suisun Marsh region is already complete and a process for integrated planning in the Yolo Bypass is underway. The Delta Conservancy will lead the implementation of identified restoration projects, in collaboration with local governments and with a priority on using public lands in the Delta. Please also see response to comment 2546-3, regarding opportunities to restore Delta habitats. Also see Master Response 31, Compliance with the Delta Reform Act.
2546	26	Cosumnes-Mokelumne Confluence priority habitat restoration area: The new Alternatives 4A (California WaterFix), 2D and 5A, while reducing impacts on Delta communities and to wildlife and farmland on Staten Island, also propose new features within the Delta Plan's Cosumnes-Mokelumne Confluence priority habitat restoration area, including a permanent new forebay and a temporary reusable tunnel material storage site, barge landing, and access road adjoining Snodgrass Slough and a temporary outlet tower/safe haven and access road on the McCormack Williamson Tract. These features' compatibility with opportunities for habitat restoration within this area, as called for by the Delta Plan's regulatory policies, should be assessed. If feasible, the forebay should be relocated outside the restoration opportunity area. If relocation is infeasible, opportunities should be explored to integrate the forebay's open water and shorelines with surrounding wildlife and fish habitats of the Cosumnes Preserve, including the McCormack-Williamson Tract, Stone Lakes National Wildlife Refuge, State Parks' Delta Meadows property, and Snodgrass Slough's aquatic habitats. If the temporary reusable tunnel material storage site, barge landing, and access road cannot be relocated, appropriate mitigation should consider removal of all project features, included stored tunnel material, promptly upon termination of their use during the project's construction, and restoration of disturbed sites as wildlife and fish habitats compatible with the surrounding landscape. Planning to avoid impacts to restoration opportunities in this area should be coordinated with the barge operations plan that would accompany the barge landing, to assure that barge operations do not rely upon dredging or other maintenance that would be incompatible with eventual restoration of the area's habitat values.	See response to comment 2546- 3, regarding opportunities to restore Delta habitats.

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2546	27	The temporary outlet tower/safe haven and access road should be relocated off the McCormack Williamson Tract if feasible. We [Delta Stewardship Council] cannot find a consistent description of this feature or an adequate assessment of its impacts in the recirculated draft EIR/S. Chapter 3 of Appendix A (Description of Alternatives) states that safe havens will be implemented during construction of the conveyance tunnels, and will involve temporary access roads and disturbance of 1-3 acres of land for a period estimated to be approximately 9-12 months (page 3-41). However, Chapter 17 (Aesthetics and Visual Resources) mentions that these areas will be approximately 10 acres in size (page 17-23). We can find no mention of the impacts of this safe haven on the McCormack-Williamson Tract. Chapter 17 of Appendix A describes the location as "the island located east of Snodgrass Slough and west of the Mokelumne River," without recognizing that this island is in fact the restoration area on the McCormack-Williamson Tract (page 17-24). Chapter 3 of Appendix A (Description of Alternatives) identifies the tract as a priority habitat restoration area, but disregards current restoration efforts (page 3-83). Table 13-11 in Chapter 13 of Appendix A (Land Use) specifically identifies that 11 acres of planned safe haven work area in Sacramento County will occur on land classified as "Agricultural Cropland," rather than "Natural Preserve" or "Open Space/Resource Conservation" areas (page 13-4). It does not appear that the restoration efforts on this tract were considered when planning the location of this particular safe haven area.	The locations of safe haven areas and access roads identified for Alternative 4 and 4A and other alternatives are preliminary and were included to ensure that these potential temporary effects are captured in this Final EIR/EIS analyses. Final safe haven areas will not be known until a more detailed assessment of mining conditions is completed. Therefore, the potential exists to move this project component. It should be noted that these sites and the access roads would be temporary and would not likely preclude plans for restoration actions. See response to comment 2546- 3, regarding opportunities to restore Delta habitats.
2546	28	Restoration of tidal marsh and riparian habitats on the McCormack Williamson Tract as part of the California EcoRestore initiative is scheduled to begin in 2016 and conclude by 2018, according to the recirculated draft EIR/S's cumulative impact analysis reports (p. S-3). Further information about the project is available at http://resources.ca.gov/docs/ecorestore/projects/McCormack Williamson Tract.pdf. Analysis of potential conflicts with habitat restoration in the area should also consider effects on timely achievement of north Delta flood management benefits, which are a key element of the restoration project. The analysis should also assess flood risks that the constrained height of McCormack-Williamson Tract's existing levees may pose to the outlet tower/safe haven and access road. Assessment of these flood risks should be coordinated with evaluation of the project's effects on flood management required by Water Code section 85320(b)(2)(E). Further delay in this long-planned, highly visible restoration project would be regrettable. If these features cannot be relocated outside the priority habitat restoration area or adverse effects on restoration opportunities cannot be adequately mitigated, this potential inconsistency with the Delta Plan should also be acknowledged in Appendix G.	For information on the relationship between the proposed project and Flood protections in the Delta, please see EIR/EIS Appendix 6A, BDCP/California WaterFix Coordination with Flood Management Requirements. Also see response to comment 2546- 63. Please also see Master Response 31, Compliance with Delta Reform Act.
2546	29	Lower San Joaquin River priority habitat restoration area: The recirculated draft EIR/S's Appendix G acknowledges that the operable barrier at the head of Old River is located within the Delta Plan's Lower San Joaquin River priority habitat restoration area. A more thorough explanation should be provided for Appendix G's conclusion that construction and operation of the operable barrier will not substantially reduce restoration opportunities there. This analysis should include consideration not only of the surface area disturbed by the operable barrier's construction, but also the barrier's compatibility with processes, such as periodic flood flows, needed to sustain a mix of tidal marsh, riparian habitat, and wildlife-friendly agriculture that the Delta Plan envisions in the area and whether the barriers may contribute to fragmentation of potential restored	See response to comment 2546- 3, regarding opportunities to restore Delta habitats. Please also see response to comment 28, for information on flood protections and the proposed project. Please see Master Response 31.

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		habitats. Assessment is also needed of the barrier's compatibility with the proposed Lower San Joaquin Flood Bypass, whose potential to reduce flood risks in nearby urban areas is an important objective for this restoration opportunity area. Assessment of these flood risks should be coordinated with evaluation of the project's effects on flood management required by Water Code section 85320(b)(2)(E).	
2546	30	We [Delta Stewardship Council] were pleased to see the recirculated draft EIR/S's additional assessment of potential effects on sandhill cranes and WaterFix's revisions to the tunnel alignment and its power demands that reduce potential impacts on this important wildlife. This was among the improvements in the recirculated draft EIR/S complimented by the ISB [Independent Science Board].	The Lead Agencies appreciate the Delta Stewardship Council's involvement in the CEQA/NEPA process.
2546	31	Mitigation of Effects on Wetlands, Aquatic Habitats, and Wildlife and Fish Habitats: The ISB [Independent Science Board] encourages more attention to measures to avoid or reduce effects on wetlands and other aquatic habitats, as well as reassessment of the extent, location, and timing of habitat restoration that compensates for unavoidable damage. The Delta Plan's implementing regulations require, in part, that covered actions not exempt from CEQA must include applicable feasible mitigation measures identified in the Delta Plan's Programmatic EIR. . . or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective (23 CCR 5002(b)(2). For adverse effects to sensitive natural communities, including wetlands and riparian habitats, the Delta Plan's mitigation measures generally include: Avoid, minimize, and compensate for reduction in area and/or habitat quality of sensitive natural communities, including wetlands, by doing the following: -Selecting project site(s) that would avoid sensitive natural communities. -Designing, to the maximum extent practicable, project elements to avoid effects on sensitive natural communities. -Replacing, restoring, or enhancing on a "no net loss" basis (in accordance with U.S. Army Corps of Engineers (USACE) and State Water Resources Control Board (SWRCB) requirements), wetlands and other waters of the United States and waters of the State that would be removed, lost, and/or degraded. -Where impacts to sensitive natural communities other than waters of the United States or State are unavoidable, compensating for impacts by restoring and/or preserving in-kind sensitive natural communities (Mitigation measure 4-1).	For the purposes of CEQA/NEPA, this Final EIR/EIS identifies acreages of mitigation required to offset project impacts and includes applicable feasible mitigation measures that are equally or more effective as identified in the Delta Plan's Programmatic EIR. CEQA/NEPA generally define mitigation as measures that avoid, minimize, rectify, reduce, or compensate for the impact and neither CEQA nor NEPA require a sequencing to which element of the mitigation must be adopted first. Mitigation sequencing is a requirement, however, as part of the U.S. Army Corps of Engineers (USACE's) permitting process under Section 404 of the Clean Water Act. As such, DWR has coordinated the development of the mitigation presented in the CEQA document where it overlaps with the expected mitigation requirements as part of the USACE permit process. To document this coordination, DWR has prepared an alternatives analysis, in conjunction with the USACE, that documents the incorporation of feasible avoidance and minimization measures for impacts related to the discharge of dredged or fill material into waters of the United States. This analysis documents that restoration and compensation measures are only proposed where avoidance and minimization measures were found to be infeasible. In addition, it is the intent of DWR that all mitigation related to wetlands will be "in-kind" although it should be noted that the USACE mitigation rule has provided for flexibility related to this issue and the USACE recognizes that "departure from [the "in-kind over out-of-kind"] preference can be environmentally preferable where replacement wetlands, streams, and other aquatic resources are designed and situated to address specific regional environmental issues, and to bring the maximum ecological benefit to the watershed. The Final EIR/EIS thoroughly covers the impacts of wetlands in Impact BI0-176, Effects of Constructing Water Conveyance Facilities on Wetlands and Other Waters of the U.S. Additional permitting information requested by the Corps is also included in Appendix E, Supplemental Information for U.S. Army Corps of Engineers Permitting Requirements.
2546	32	Mitigation of Effects on Wetlands, Aquatic Habitats, and Wildlife and Fish Habitats: As the ISB [Independent Science Board] notes, the recirculated draft EIR/S does not explain how the project incorporates measures to avoid or minimize effects that would conform to this provision. In addition, the final EIR/S should clarify whether any of the wetland restoration is out-of-kind and how much is in-kind replacement of losses. The ISB agrees that out-of-kind mitigation can be preferable to in-kind when the trade-offs are known and quantified and mitigation is conducted within a watershed context, as described in USACE [U.S. Army Corps of Engineers]'s guidance. If compensatory wetland mitigation on or near the site of impact is infeasible or ill-advised, offsite opportunities should be considered in a	See response to comment 2546- 31, regarding wetland mitigation.

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		landscape context, including the potential to site mitigation areas within the Delta Plan's priority habitat restoration areas to achieve synergies with other planned restoration projects and to minimize conflicts with agriculture or other uses.	
2546	33	Evaluation and Mitigation of Impacts to Unique Delta Values: In our comments on the draft EIR/S, we [Delta Stewardship Council] noted that the proposed BDCP conveyance and restoration measures will significantly and adversely affect important attributes of the Delta's regional character, including values that the Council's Delta Plan describes as contributing to making the Delta a distinctive and special place. The Delta Reform Act and Delta Plan anticipate that changes to these attributes will occur and may be necessary to achieve the coequal goals, but seeks to accommodate these changes while preserving the fundamental characteristics and values that contribute to the Delta's special qualities and that distinguish it from other places. We also pointed out that the project's effects on the Delta's agricultural, recreational, and cultural resources should be considered in the context of larger past and likely future trends [which] threaten the agricultural, recreational, and cultural values of the Delta. Those observations also apply to consideration of the impacts of the California WaterFix initiative. California WaterFix reduces some the BDCP's adverse effects on unique Delta values because of the revision to diversion and conveyance facilities in the north Delta, which reduces damage to agriculture, recreation, scenic resources, and Delta communities. Separation of most habitat restoration measures into the California EcoRestore initiative further reduces impacts to agriculture. We appreciate these improvements. Nevertheless, the new alternatives will still have significant adverse effects on the Delta's unique values that should be more thoroughly assessed, avoided where feasible, and better mitigated.	See response to comment 2546- 4, regarding Delta values.
2546	34	Agriculture is the Delta's primary land use and a valued resource. The amount of land that will be converted from agricultural use by the California WaterFix's construction is unclear. In part, this is because the recirculated draft EIR/S offers differing estimates of the amount of land needed for reusable tunnel material (RTM) storage. For example, Chapter 3 says 2,600 acres are needed for RTM storage, Chapter 14 says 3,630 will be needed for RTM storage, and Appendix 3C says 2,570 will be needed for RTM storage. In addition, the acreage permanently converted from farm use is reported in two overlapping measurements: acres of important farmland (which includes some lands in Williamson Act contracts) and farmland in Williamson Act contracts (which may include some farmland not classified as important). These differing and overlapping estimates should be resolved by reporting the total amount of farmland that will be converted including both important farmland and other agricultural land in Williamson Act contracts. In addition to the farmland converted by project construction, up to 1,400 more acres of farmland may be converted for compensatory habitat restoration to mitigate project effects. WaterFix's construction may also potentially impair water quality for some agricultural users, disrupt agricultural infrastructure, and harm the agricultural economy, according to the recirculated draft EIR/S. The final EIR/S should better describe and more carefully avoid or mitigate all impacts to agriculture.	Appendix 3C, Construction Assumptions, states, “a total of approximately 2,570 acres would be allocated to RTM storage and dredged material for the modified pipeline/tunnel alignment north and main tunnels”. For the agricultural resources impact analysis, geospatial data was used to identify the number of acres of Important Farmland and land contracted under Williamson Act that would be affected by the footprint of all components of the proposed action alternatives. Values provided in Chapters 3 and Appendix 3C are estimates, as indicated by the “approximate” value provided. The conservative approach taken in Chapter 14 to identify agricultural resources potentially disturbed temporarily and permanently will encompass any changes in project design that may occur once the project design is refined further. Important Farmland acreages and the acreages of land contracted under Williamson Act are reported separately for the purposes of the impact analysis to relate to the criteria used for determining significance of an effect on agricultural resources, i.e., (1) Convert to nonagricultural use a substantial amount of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (collectively “Important Farmland”), as shown on the most recent California Department of Conservation Important Farmland maps for each of the affected counties at the time the analysis was conducted for the EIR/EIS; and (2) Convert a substantial amount of land subject to Williamson Act contracts or in Farmland Security Zones to a non-agricultural use incompatible with contract restrictions or local preserve rules or ordinances, or conflict with surrounding land uses or the terms of the applicable Farmland Security Zone. The law concerning CEQA’s consideration and protection of agricultural land continues to evolve, and this Final EIR/EIS carefully considers the impacts of farmland conversion and the options available for responding to those impacts. Effects of the project will be subject to aggressive mitigation efforts. Land that is not directly affected by construction or habitat restoration should remain productive. See Master Response 18

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			for more information regarding agricultural impact mitigation.
2546	35	Impacts of compensatory habitat restoration: The recirculated draft EIR/S evaluates a variety of impacts on Delta agriculture caused by the compensatory habitat restoration to mitigate project effects. This compensatory mitigation is part of the project's environmental commitments. However, because the environmental commitments are presented at a programmatic level it is still not possible to fully identify the impacts to agriculture with any degree of certainty. Section 4.3.10 of the recirculated draft EIR/S indicates roughly 15,548 acres of habitat will be restored, including the acreage of farmlands managed especially for sandhill cranes or other wildlife. Because specific locations have not been selected for this restoration, the recirculated draft EIR/S does not identify specific farmlands, or how many acres of them will be impacted. The final EIR could be improved by more carefully describing how much agricultural land will be converted. For example, the recirculated draft EIR/S's concludes that impact AG-3 "will restore up to 1,400 acres." More careful estimation of requirements for compensatory habitat restoration could provide a better basis for identifying the acreage of agricultural easements needed to offset the loss. Information about specific properties to be acquired in the WaterFix right-of-way could also be used to assess project impacts caused by losses of important agricultural infrastructure, such as drainage and irrigation facilities or by fragmenting parcels.	Appendix 3C, Construction Assumptions, states, “a total of approximately 2,570 acres would be allocated to RTM storage and dredged material for the modified pipeline/tunnel alignment north and main tunnels”. For the agricultural resources impact analysis, geospatial data was used to identify the number of acres of Important Farmland and land contracted under Williamson Act that would be affected by the footprint of all components of the proposed action alternatives. Values provided in Chapters 3 and Appendix 3C are estimates, as indicated by the “approximate” value provided. The conservative approach taken in Chapter 14 to identify agricultural resources potentially disturbed temporarily and permanently will encompass any changes in project design that may occur once the project design is refined further. Important Farmland acreages and the acreages of land contracted under Williamson Act are reported separately for the purposes of the impact analysis to relate to the criteria used for determining significance of an effect on agricultural resources, i.e., (1) Convert to nonagricultural use a substantial amount of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (collectively “Important Farmland”), as shown on the most recent California Department of Conservation Important Farmland maps for each of the affected counties at the time the analysis was conducted for the EIR/EIS; and (2) Convert a substantial amount of land subject to Williamson Act contracts or in Farmland Security Zones to a non-agricultural use incompatible with contract restrictions or local preserve rules or ordinances, or conflict with surrounding land uses or the terms of the applicable Farmland Security Zone. The law concerning CEQA’s consideration and protection of agricultural land continues to evolve, and this Final EIR/EIS carefully considers the impacts of farmland conversion and the options available for responding to those impacts. Effects of the project will be subject to aggressive mitigation efforts. Land that is not directly affected by construction or habitat restoration should remain productive. See Master Response 18 for more information regarding agricultural impact mitigation.
2546	36	Increased Farm-to-Market Travel Times: Impact ECON-6 (p. 16-36, lines 2-4 of recirculated draft EIR/S) anticipates an increase in agricultural production costs from "operational constraints and longer travel times due to facilities construction." The final EIR/S should more carefully evaluate how the conveyance construction impacts may affect transportation between key agricultural areas and important processing or marketing facilities.	This Final EIR/S describes potential increased costs due to longer travel times at a level that satisfies CEQA and NEPA requirements. As described in Impact ECON-6 for Alternative 4A the proposed project may affect production costs on lands even if gross revenues are largely unaffected. Costs could be increased by operational constraints and longer travel times due to facilities construction. Construction designs and costs have provided for such costs in two ways. In most cases, affected lands fall within the facilities footprint, and are included in the agricultural acreage and value of production described elsewhere in this chapter and in Chapter 14, Agricultural Resources, Section 14.3.3.9, Impacts AG-1 and AG-2. For potentially affected lands not included in the facilities footprint, conveyance construction costs include temporary and permanent roads, bridges, and other facilities as needed to service agricultural lands (California Department of Water Resources 2010a, 2010b). There could be some additional travel time and other costs associated with using these facilities, but such costs are not environmental impacts requiring mitigation.
2546	37	Chapter 19 (Table 19-25) indicates that the designated "farm-to-market" corridor (Highway 99 between Bakersfield and Sacramento) will not be impacted; however, during construction Level of Service (LOS) thresholds will be exceeded (made worse than previous LOS) on 38 other segments of state highways and local roadways (Impact TRANS-1). Further, LOS thresholds will be exceeded to a D or worse on 10 segments for the duration of the construction period. This includes important thoroughfares such as sections of Interstate-S, State Road 4 and 84 (Jefferson Blvd); and important bridges across the Sacramento River. The recirculated draft EIR/S identifies mitigation measures (TRANS 1a-c) to reduce the severity of the impact. However, "the BDCP proponents cannot ensure that the improvements will be fully funded or constructed prior to the project's contribution to the impact," (page 19-122 of recirculated draft EIR/S lines 9-10). The final EIR/S should explain	As this Final EIR/EIS Chapter 19 states, if an improvement that is identified in any mitigation agreement(s) contemplated by Mitigation Measure TRANS-1c is not fully funded and constructed before the project’s contribution to the impact is made, a significant impact in the form of unacceptable LOS would occur. Accordingly, this impact would be significant and unavoidable. If, however, all improvements required to avoid significant impacts prove to be feasible and any necessary agreements are completed before the project’s contribution to the effect is made, impacts would be less than significant. Impact ECON-6 in Chapter 16 states that other effects related to production costs, travel time, and loss of investments in production facilities and standing orchards and vineyards would occur as a result of facilities construction. Costs could be increased by operational constraints and longer travel times due to facilities

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		the constraints that limit full funding of these mitigation measures and the basis for determining that mitigation is not feasible. If all mitigation measures to reduce traffic impacts are not implemented successfully, the impacts to LOS on these roads will remain significant and unavoidable. The impacts of the decrease in LOS on roadways serving key agricultural areas due to construction will likely remain considerable, and the economic effect and any related environmental effects should be acknowledged in Chapter 15, Impacts ECON-5 and ECON-6.	construction. In addition the Mitigation, Monitoring, and Reporting Plan includes information on the action, responsible parties, location, timing, monitoring, and reporting requirements for each mitigation measure included in this Final EIR/EIS.
2546	38	Agricultural Economics: The recirculated draft EIR/S indicates that construction of the California WaterFix will cause many significant and adverse direct and indirect impacts to agriculture, and that the California WaterFix will significantly alter the agricultural character and regional economy. Impact ECON-3 acknowledges that the project will change the agricultural character of the Delta region. The long-term footprint of construction and the disruption to infrastructure are expected to decrease agricultural production valued at $5.3 million annually, indirectly impact agriculture by increasing production costs (ECON-6), and by causing a decline in agricultural employment during construction by about 40 jobs (Impact ECON 1, Table 16-42). According to the recirculated draft EIR/S, impacts to agriculture under alternative 4 will remain "Significant and Unavoidable." These impacts could be better assessed by considering the regional significance of the decline in agricultural related income (Table 16-42) and the associated loss of jobs in comparison with the $795 million value of regional crop and livestock production and 13,179 total agricultural jobs reported in the Delta Protection Commission's Economic Sustainability Plan (p. 112). It would also be helpful to assess whether these impacts cause such significant losses of a particular crop that they affect the viability of that crop in the region as a whole or have particularly significant impacts to high value crops (e.g., vineyards) or heirloom crops (e.g., pears and asparagus).	The Environmental Setting Section 16.1 of Chapter 16, Socioeconomics, states that the total value of irrigated crop production in the Delta is more than $600 million per year, and estimates crop and livestock value at a total of $697 million per year. Additionally, Chapter 16 already describes crop acres and changes in crop values for each alternative as compared to Existing Conditions and the No Action Alternative. In Table 16-43, which applies to Alternatives 4 and 4A (the proposed project), the value of orchards and vineyards production would decrease by $1.4 million and 0.4 acres. Additionally, the analysis as currently presented satisfies CEQA and NEPA requirements. For more information regarding significant and unavoidable impacts, please see Master Response 10.
2546	39	Integrating Agricultural Mitigation with Other Regional Conservation Strategies: Mitigation proposed for agricultural impacts generally offers two options: 1) a conventional approach conserves agriculture by acquiring easements on agricultural land in direct proportion to the amount of agricultural land converted to other uses; or 2) an agricultural land stewardship approach. In the land stewardship approach, restoration is implemented by selecting mitigation measures, in particular agricultural land stewardship options that could be integrated into regional conservation strategies. These strategies should include local HCPs, local land trusts' activities to protect important farmland threatened by development, or actions complementing the California EcoRestore initiative. These regional strategies could: 1) incorporate agricultural considerations into regional environmental commitments; 2) provide a framework for project selection and design; 3) contribute to a system of protected agricultural resources; and 4) provide a framework for evaluating and mitigating impacts to agriculture and other land uses. It could also help avoid or reduce impacts to the most valuable agricultural areas, enable interconnected agricultural zones and habitat corridors, and minimize edge effects. The following techniques should be used in the regional conservation strategies to preserve and protect agriculture: -Use easements to protect land where development threats are greater. For example, at a minimum, losses of farmlands converted to non-farmed habitat could be mitigated by securing conservation easements that protect other agricultural lands threatened by	If the Lead Agencies and local interests in the Delta are able to jointly develop agricultural land stewardship plans, these recommendations will be part of the process. If the agricultural land stewardship is not feasible, where feasible, mitigation shall generally result in the purchase of agricultural conservation property interests, such as easements on other agricultural lands of the same overall quality and acreage either directly or indirectly. The two preferred forms of mitigation in this context shall be (i) the inclusion of sufficient acreages within agricultural preserves within the proposed project's lands to satisfy CEQA and NEPA agricultural resource mitigation in addition to meeting project objectives under the Endangered Species Act and California's Natural Community Conservation Planning Act and (ii) reliance on the California Farmland Conservancy Program or on other established programs in the Delta supported by the county where the project is located, the Delta Stewardship Council, the Delta Protection Commission, or the Delta Conservancy. Where the Lead Agencies choose to rely on the latter strategy, they shall confirm, prior to submitting funds into any program both (a) that the program meets the standards under CEQA case law for a "reasonable mitigation plan" and (b) that they can spend the funds at issue for the preservation and, where appropriate, the enhancement, of land that is reasonably proximate to the land being impacted and of a similar quality or extent. Where these two preferred options are unavailable or infeasible, the Lead Agencies shall be responsible for purchasing agricultural conservation property interests on their own. Please see Chapter 14, Agricultural Resources, Mitigation Measure AG-1, Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones, for Alternative 4A, for more

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		development, such as land in the Delta's secondary zone. Lands in the primary zone, on the other hand, are already protected from urban development by state law. The Delta Plan proposes mitigation for farmland losses at a ratio of one acre protected for each acre converted to non-farm use. -Identify mitigation within the regional conservation strategy framework so that the effects on drainage, cropping systems, etc., can be integrated with restoration strategies. -Implement safe harbor agreements, as described on pages 143 and 186 of the Delta Plan, and propose other good neighbor arrangements.	information regarding the topic addressed in the comment.
2546	40	Recommendations from the Delta Plan: Potential mitigation measures included in the Delta Plan's recommendations for supporting the Delta's agricultural economy should be considered to mitigate environmentally-significant economic impacts to agriculture. For example, the Delta Plan recommends that local governments and economic development organizations, in cooperation with the Delta Protection Commission and the Delta Conservancy, encourage value-added processing of Delta crops in appropriate locations (DP R8 Promote Value-Added Crop Processing). Similarly, DP R9 (Encourage Agritourism) recommends support for agritourism, particularly in and around Delta Legacy Communities.	Mitigation Measure AG -1, Develop an Agricultural Lands Stewardship Plan, takes into consideration many traditional and non-traditional means for reducing effects on agricultural lands and agricultural production in the Delta. Please also see Master Response 18 regarding agricultural impact mitigation.
2546	41	Five million people live within a 20-minute drive of the Delta and Suisun Marsh, the typical distance Californians drive to reach a favorite recreation area. About 12 million visitor days occur in the Delta annually. Demand for recreation that can be provided in the Delta is growing, both with the forecast doubling of the region's population over the next 50 years, and with the potential to attract visitors from other regions. Protecting these valued recreation opportunities is important and measures to do so should be included in the final EIR/EIS. As measures to mitigate these affects to recreation are proposed and implemented, DWR should consider its responsibilities regarding fish, wildlife, and recreation in state water projects (Water Code sections 11910-11915), especially the duty to coordinate with the Department of Parks and Recreation and local governments (Water Code section 11910-11910.1).	Refer to 15.1, Environmental Setting/Affected Environment, of this Final EIR/EIS, regarding the existing conditions of recreation in the study area. Refer to 15.3, Environmental Consequences, of this Final EIR/EIS, regarding the methods of analysis used, determination of effects, and the approach to mitigation for the impacts to recreation from the proposed project. Refer to 15.3.4.2, Alternative 4A- Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5 (9,000 cfs; Operational Scenario H) for impact conclusions regarding recreational impacts. Several mitigation measures and environmental commitments are provided to help reduce construction-related impacts by compensating for effects on wildlife habitat and species; minimizing the extent of changes to the visual setting, including nighttime light sources; manage construction-related traffic; and implementing noise reduction and complaint tracking measures. These mitigation measures include; REC-2, BIO-75, AES-1a, AES-1b, AES-1c, AES-1d, AES-1e, AES-1f, AES-1g, AES-4a, AES-4b, AES-4c, AES-4d, TRANS-1a, TRANS-1b, TRANS-1c, NOI-1a, and NOI-1b. Please refer to Environmental Commitment 3B.3.2, of this Final EIR/EIS, for more information on how DWR shall work with the California Department of Parks and Recreation (DPR) to help insure the elements of the project would not conflict with the elements proposed in DPR's Recreation Proposal for the Sacramento–San Joaquin Delta and Suisun Marsh. As many improvements as feasible would be incorporated. These include enhanced bicycle and foot access to the Delta, and construction of trails. Additionally, Environmental Commitment 3B.3.4 will fund the California Department of Boating and Waterways' programs for aquatic weed control.
2546	42	Impacts to recreation facilities in construction zones: The recirculated draft EIR acknowledges that ten or more years of conveyance construction will result in the long-term reduction of recreational opportunities and experiences in the Delta both on land and in water (Impact ECON 5, REC 2 and 3). Traffic delays, disturbance, noise, and water quality impacts may reduce visits to, or prevent access to specific recreational sites. This, in turn, may cause local recreation-related businesses to suffer or close from reduced spending, with potential cumulative effects to private visitor-serving facilities vulnerable to a decline	Regarding recreation related socioeconomic impacts; CEQA does not require a discussion of socioeconomic effects, except where they would result in reasonably foreseeable adverse physical changes to the environment. Under CEQA social or economic effects alone shall not be treated as significant effects (State CEQA Guidelines §§ 15064(f), 15131). The analysis of the economic effect of changes in Delta recreation used results from Chapter 15, Recreation, Sections 15.3.3.2 through 15.3.3.16, which included potential changes in recreational opportunities and

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		in regional recreational-related economic activity. Nine facilities are within areas the recirculated draft EIR/S identifies. Four are public recreation areas: State Parks' Delta Meadows property, the Cosumnes Preserve, Stone Lakes National Wildlife Refuge, and the Clifton Court Forebay. Five are marinas: Bull Frog Marina, Clarksburg Marina, Lazy M Marina, New Hope Landing Trailer Park and Marina, and Wimpy's Marina. In addition, declining levels of service on roads affected by construction traffic may affect access to and use of additional 101 public recreation areas and marinas within 1 mile of those roads. Though proposed mitigation measures offer noise abatement programs, detours and temporary roads around construction, protection of navigation on affected waterways, and other activities to minimize disturbances, the impacts of California WaterFix conveyance construction activities on recreation in construction zones are still significant. A more comprehensive assessment of impacts is warranted, and additional mitigation should be offered to offset the impacts that cannot be avoided. For example, impact ECON-5 discusses the qualitative effects on recreational economics as a result of constructing conveyance, and Impacts REC 1-4 discusses general impacts qualitatively. Quantifying the effects on recreational uses and opportunities, for example, by reporting affected facilities' annual visitation levels or recreational capacity (e.g., number of berths or overnight spaces) would enable comparison of alternatives to assess which alternative most significantly impacts recreation in the Delta (recirculated draft EIR/S section 16.3.3.9 pages1 6-33 and 16-34) and could facilitate proposing mitigation measures that are properly scaled to the magnitude of the impacts. Other mitigation measures that should be considered include promotion, in cooperation with organizations like the Delta Chamber of Commerce or other Delta marketing entities, of alternate access routes to affected recreation areas or areas unaffected by construction. CalTrans' efforts in cooperation with Lake Tahoe tourism agencies during the reconstruction of Highway 50 may provide a model.	quality resulting from facilities construction and operation, as well as potential changes resulting from the implementation of CM2–CM21. These changes, along with their anticipated economic effects, are discussed qualitatively in Sections 16.3.3 and 16.3.4 and are based on the discussion and analysis included in Chapter 15, Recreation, Sections 15.3.3.2 through 15.3.3.16, and Sections 15.3.4.2 through 15.3.4.4. While these discussions estimate recreational effects on the study area as a whole, it is possible that recreational opportunities and quality in specific areas within the Delta would be disproportionately affected by project activities. It is also possible that these activities would create beneficial effects in specific places based on the relocation of existing activities accomplished as part of an environmental commitment (see Appendix 3B, Environmental Commitments, AMMs, and CMs) or through the creation of new or higher-quality recreational opportunities related to mitigation measures, as described in Chapter 15, Recreation, Sections 15.3.3.2 through 15.3.3.16, and Sections 15.3.4.2 through 15.3.4.4. The potential for these economic effects is discussed, where appropriate. Regarding impacts to level of service impacts; Mitigation Measures TRANS 2a, 2b, 2c would help to mitigate impacts to level of service of roads through prohibiting and limiting construction activity on physically deficient roadway segments and improving physical conditions of affected roadway segments as stipulated in mitigation agreements or encroachment permits. Mitigation measure TRANS-1a, Implement Site-Specific Construction Traffic Management Plan, states that DWR will consult with Caltrans, local agencies for local roads, transit providers, rail operators, the U.S. Coast Guard; city and county parks departments, and the California Department of Parks and recreation. Please note that Mitigation Measure TRANS-1a, Implement Site-Specific Construction Traffic Management Plan, has been updated in this Final EIR/EIS, to include consultation with Caltrans and local transportation agencies to schedule construction traffic to minimize impacts to community events. Regarding impacts to recreation, evaluating impacts on recreation in a qualitative manner meets CEQA and NEPA requirements. The criteria used for determining the significance of an effect on recreational resources are based on Appendix G of the State CEQA Guidelines (Environmental Checklist) and professional standards and practices. The assessment methods for Conservation Measure (CM) 1, and Alternatives 2D, 4A, and 5A, which don't include CMs, evaluate effects on recreation resources resulting from the construction, operation, and maintenance of facilities as they affect the following. • Recreational activities (water-dependent, water-enhanced, and land-based) and opportunities in the study area that are near action alternative facilities. • Water-dependent (e.g., boating and swimming) and water-enhanced recreation opportunities at major north-of-Delta reservoirs and major SWP/CVP south-of-Delta reservoirs that may be affected by changed operations under the action alternatives. Effects on recreation were assessed by identifying recreation areas that fall within the construction footprint to evaluate whether recreation sites or facilities would be permanently displaced by the proposed water conveyance facilities. In addition, the effects on recreation sites or uses within certain distances of construction activity were evaluated to assess the potential for construction-related disturbances to recreation opportunities because of changes to the visual setting and elevated noise levels that could occur during construction of the proposed facilities. These impact areas were primarily based on the analysis described in Chapter 23, Noise, Section 23.3.3 (see Table 23-16. Predicted Noise Levels from Construction

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			Activities and Table 23-17. Predicted Noise Levels from Construction-Pile Driving and Construction Equipment for Intake Structures). These impact areas were determined using GIS sources to evaluate the potential for degradation of the recreation setting due to construction or operations and maintenance of the action alternatives. Effects on recreation that could occur during construction of action alternative facilities were evaluated qualitatively. Construction activities could result in a short-term loss of recreation opportunities (2 years or less) by disrupting use of recreation areas or facilities. A long-term effect (more than 2 years) could occur if a recreation opportunity is substantially changed or eliminated due to the presence of construction-related activities and noise or the opportunity is fully eliminated as a result of placement of water conveyance structure(s) on or adjacent to a recreation area or facility. Effects on recreation that could occur as a result of maintenance and operation of the water conveyance facilities were also evaluated qualitatively. Maintenance activities could result in short-term loss of recreation opportunities by disrupting use of recreation areas or facilities and operation of the pump stations could result in noise levels that affect recreation areas. Please refer to 15.1, Environmental Setting/Affected Environment, of this Final EIR/EIS, regarding the existing conditions of recreation in the study area. Please refer to 15.3, Environmental Consequences, of this Final EIR/EIS, regarding the methods of analysis used, determination of effects, and the approach to mitigation for the impacts to recreation from the proposed project. Please refer to 15.3.4.2, Alternative 4A- Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5 (9,000 cfs; Operational Scenario H) for impact conclusions regarding recreational impacts from the proposed project. Several mitigation measures and environmental commitments are provided to help reduce some construction-related impacts by compensating for effects on wildlife habitat and species; minimizing the extent of changes to the visual setting, including nighttime light sources; manage construction-related traffic; and implementing noise reduction and complaint tracking measures. These mitigation measures include; REC-2, BIO-75, AES-1a, AES-1b, AES-1c, AES-1d, AES-1e, AES-1f, AES-1g, AES-4a, AES-4b, AES-4c, AES-4d, TRANS-1a, TRANS-1b, TRANS-1c, NOI-1a, and NOI-1b.
2546	43	The Delta Protection Commission's Economic Sustainability Plan (2012) and California State Parks' Recreation Proposal for the Sacramento-San Joaquin Delta (2011) indicate that boating comprises 60 percent of Delta recreation-days and contributes 80 percent of tourism spending. The recirculated draft EIR/S finds that the construction and operation of conveyance facilities (which will occur in or near recreational boating corridors) will have significant and unavoidable impacts on long term recreational boating opportunities by disrupting boat passage at these sites (Impact REC-3, page 4.3.11-5, recirculated draft EIR/S Sec. 15.3.3.9 pages 15-22 through 15-28): -Three intakes on the Sacramento River. -Clifton Court Forebay (siphons). -Head of Old River Barrier. -Snodgrass Slough, Potato Slough, San Joaquin River, Middle River, Connection Slough, Old River, West Canal. The scale of these impacts could be better assessed if the length of waterways affected by	DWR analyzed impacts to recreation in Chapter 15 and transportation in Chapter 19, and proposed mitigation measures for significant and unavoidable impacts. The 2013 DEIR/DEIS and 2015 RDEIR/SDEIS identified reduction of recreation opportunities and experiences and recreational navigation opportunities as a result of constructing the proposed water conveyance facilities as significant and unavoidable impacts. Refer to response to comment 2546- 42, regarding the criteria used for determining the significance of an effect on recreation. Waterways will still be navigable during construction and operation of the proposed project. The proposed project would result in temporary impacts to boaters and on-water recreationists. To allow for construction of intakes, cofferdams would be constructed within the river channel. The cofferdams would vary in size according to intake location, but would range from 740 to 2,440 feet in length and would extend into the river channel up to 85 feet, depending on location. This would include a 25-foot buffer zone around each cofferdam. Although boats would be unable to use the portion of the waterway where construction was occurring, the river in the vicinity of the intake construction sites would remain open to boat passage at all times. The river is approximately 500–700 feet wide near the proposed intakes, which would leave most of the channel width (approximately 380–580 feet) open to boat passage, providing ample room for the boat traffic observed to occur in the area to pass without difficulty and minimizing possible traffic congestion. See Impact REC-3 for Alternative 4 for more information. Additionally, the project includes plans to reduce those impacts as much as possible with implementation of environmental commitments to prepare and

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		construction were more dearly described and considered in relation to Delta's 700 miles of navigable waterways. The recirculated EIR/S acknowledges that many sites on the water will also likely see a decline in use during the construction period due to construction noise and/or geotechnical testing as described in impact REC-2. The proposed mitigation emphasizes traffic and aquatic weeds management, but specific mitigation for these negative impacts on boating access should also be provided. Potential approaches could include compensatory improvements to boating facilities that provide access to other Delta regions unaffected by the WaterFix initiative.	implement a water navigation plan and provide notification of construction and maintenance activities in waterways (Appendix 3B, Environmental Commitments). Additionally, Mitigation Measure TRANS-1a would reduce impacts on marine navigation by development and implementation of site-specific construction traffic management plans, including specific measures related to management of barges and stipulations to notify the commercial and leisure boating communities of proposed barge operations in the waterways.
2546	44	Driving for pleasure is among Californians' favorite recreations, and the project's effects on it should be addressed. Forty-five percent of Californians participate in driving on paved roads for pleasure, sightseeing, and the enjoyment of natural scenery, according to the Department of Parks and Recreation's Survey on Public Opinions and Attitudes on Outdoor Recreation in California (SPOA) 2012, Complete Findings (January 2014). Highway 160, a state Scenic Highway, and the Delta Loop extending from Highway 160 through Brannan Island and Perry's Island Roads to Highway 12 are key routes for recreational drivers. Construction detours, aesthetic impacts, and construction-related congestion on Highway 160 and Highway 12 will affect both of these recreational driving routes. The final EIR/S should report the miles of these routes affected by construction impacts. In addition, the EIR should assess impacts that noise, traffic congestion, and damage to scenic resources caused by the California WaterFix alternatives will have on recreational driving. One useful measure would be to assess what portion of a typical 65-minute recreational drive from Freeport to Antioch along Highway 160 would be impaired by construction detours, aesthetic impacts, and traffic congestion along the route. In addition, the final EIR/S could report the typical construction-related delay a recreational driver would likely encounter trying to reach the Delta Loop. Appropriate mitigations could include landscape treatments along routes degraded by the project, compensation for unavoidable effects by removing aesthetic detractants along parts of the route not affected by the project, development of features, such as vista points, that could be enjoyed by motorists on portions of these pleasure driving routes that are unaffected by the project, support for locally-developed wayfinding systems that help motorists use and enjoy those portions of these pleasure driving routes, or other measures.	Construction traffic is discussed in Impact REC-2, and also in Chapter 19 of the Final EIR/EIS, Section 19.3.3.2, of this Final EIR/EIS. Section 19.3.2, Determination of Effects, addresses the potential for effects associated with temporary construction activities (i.e., effects limited to those during the 9- to 14-year construction period), the footprint of disturbance of new water conveyance facilities and other conservation measures and Environmental Commitments, and the permanent operation of the project alternatives within the study area (i.e., effects occurring after construction and during the project lifetime). This analysis uses a range of methodological approaches to evaluate effects stemming from the alternatives. Geospatial data was used to identify the transportation facilities that would be affected by construction and operation of all components of the proposed alternatives. Trip generation estimates were derived from construction estimates for the construction period and assumptions on the number of personnel needed for routine maintenance and operational activities following construction, which were developed by the engineering and design team for the air quality/GHG analysis. An intersection-level analysis was not performed because sufficient information regarding construction traffic patterns is not available for this level of analysis and it would be speculative and potentially misleading to assign construction related traffic by turning movement. The roadway segment analysis is sufficient to identify project impacts and to develop mitigation measures given the information available regarding construction traffic. By conducting an hourly “worst-case” scenario segment analysis, the traffic impact study identified critical time periods during the day that may need to be avoided or where physical improvements may be required. These critical periods include peak commute hours for the study roadways. Mitigation Measure TRANS-1a would involve preparation of site-specific construction traffic management plans that would address potential public access routes and provide construction information notification to local residents and recreation areas/businesses. Additionally, DWR would provide and publicize alternative modes of access to affected recreation areas as an environmental commitment. Where construction impedes access around or near existing recreation areas (e.g., Clifton Court forebay), the Lead Agencies would provide clear pedestrian, bicycle, and vehicular routes around or across construction sites. These would be designed to be safe, pleasant and would integrate with opportunities to view the construction site as an additional area of interest. These physical facilities would be combined with public information, including sidewalk wayfinding information that would clearly indicate present and future opportunities for access. Several mitigation measures would be incorporated to reduce impacts. These include the following: Mitigation Measure TRANS-1b would limit construction hours or activities and prohibit construction vehicle trips on congested roadway segments and Mitigation Measure TRANS-1c would implement measures to enhance capacity of congested roadway segments. Mitigation Measure AES-1b is set forth to minimize sensitive receptors (i.e., residents and recreational areas) views of construction work areas. Mitigation Measure AES-1e will apply aesthetic design treatments to all structures to the extent feasible and includes evaluating similar, local well-designed water conveyance structures, including those with historic value and use these features as design precedent to develop designs for project feature and reference to the Freeport

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			Regional Water Project intake facility.
2546	45	Impacts of Construction Work Force Housing Demand on RV Parks and Resorts: Housing for construction workers may include extended use of recreational vehicle parks and hotels and motels (recirculated draft EIR/S p 16-29 and 16-30), which could displace people seeking recreational opportunities in the Delta. Housing for migrant farm labor may also be affected. The extent of this potential impact to recreation is unclear and no mitigation is currently provided. While the EIR/S does not anticipate a large influx of out-of-area workers, this impact to recreation and need for mitigation should be more thoroughly evaluated.	Please refer to Impacts ECON-1, 2, and 5 in Chapter 16, Socioeconomics, regarding effects on regional economics and employment, population and housing, and recreational economics. It is anticipated that many of the construction jobs would be filled from the existing labor force in the five-county study area region although construction of the conveyance tunnels may require specialized skills resulting in recruitment of specially trained workers coming from outside this region. As described in Chapter 16, Socioeconomics, Section 16.3.3.2, Impact ECON-2, this additional population would constitute a minor increase in the total 2020 projected regional population of 4.6 million. Because the construction population would primarily come from the five-county labor force and because the minor increase in demand from the worker population that would move into the area for specialized jobs (e.g., tunnel construction) would be spread across the large multi-county study area, construction of the alternative is not anticipated to result in an increased demand or adverse effects on existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
2546	46	Mitigation for Recreation Impacts: The final EIR/S should provide explicit mitigation measures for the significant, unavoidable recreation impacts caused by the California WaterFix construction and operation. Determinations of appropriate mitigation should be made in consultation with the Department of Parks and Recreation, the Delta Protection Commission, and local governments, and appropriate mitigation commitments should be included in the final EIR/S. Potential mitigation measures include the Delta Plan's recommendations for encouraging recreation and tourism. For example, the Delta Plan recommendation DP R11 (Provide New and Protect Existing Recreation Opportunities) asks ecosystem restoration agencies to provide recreation opportunities at new facilities and restored habitat areas whenever feasible, and to protect existing recreational facilities using California State Parks' Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh (2011) and the Delta Protection Commission's Economic Sustainability Plan (2012) as guides.	Due to the size of the Plan Area and the duration of construction, recreation impacts could be significant. Mitigation measures would reduce some construction-related impacts by implementing measures to protect or compensate for effects on existing recreation opportunities (Mitigation Measure REC-2); effects on wildlife habitat and species (Mitigation Measure BIO-75); minimize the extent of changes to the visual setting (Mitigation Measures AES-1a, AES-1b, AES-1c, AES-1d, AES-1e, AES-1f, AES-1g, AES-4a), including nighttime light sources (Mitigation Measures AES-4b, AES-4c, and AES-4d); manage construction-related traffic (TRANS-1a, TRANS-1b, TRANS- 1c); and implement noise reduction and complaint tracking measures (NOI-1a and NOI-1b). Mitigation measures and environmental commitments would reduce the impacts on wildlife, visual setting, transportation, and noise conditions that could otherwise detract from the recreation experience. However, due to the dispersed effects on the recreation experience across the Delta, it is not certain that mitigation would reduce the level of these impacts to less than significant in all instances. Please refer to Environmental Commitment 3B.3.2 for more information on how DWR shall work with the California Department of Parks and Recreation (DPR) to help insure the elements of the project would not conflict with the elements proposed in DPR's Recreation Proposal for the Sacramento–San Joaquin Delta and Suisun Marsh. As many improvements as feasible would be incorporated. These include enhanced bicycle and foot access to the Delta, and construction of trails. Additionally, Environmental Commitment 3B.3.4 will fund the California Department of Boating and Waterways' programs for aquatic weed control. Please refer to comment 2546- 48, regarding DP R11. Please refer to response to comment 2546- 42, regarding recreation analysis and proposed mitigation presented in this Final EIR/EIS.
2546	47	Enhancing recreational access in the vicinity of proposed intakes (recirculated draft EIR/S 3B.3.2, page 3B-75) after construction is completed is a good opportunity to attract visitors to the Delta, and to highlight the legacy of water engineering, which would fit in an overall Cultural Resources Preservation Plan. This environmental commitment could be improved with a reference to good examples of the idea in practice.	The Lead Agencies have chosen to leave this commitment open to creative interpretation so as not to limit it by referring only to existing examples. DWR shall work with the California Department of Parks and Recreation (DPR) to help insure the elements of the project would not conflict with the elements proposed in DPR's Recreation Proposal for the Sacramento–San Joaquin Delta and Suisun Marsh. As many improvements as feasible would be incorporated. These include enhanced bicycle and foot access to the Delta, and construction of trails.
2546	48	Appendix 3B states that Environmental Commitment 3B.3.3 (Fund Efforts to Carry-out the Recreation Recommendations Adopted in the Delta Plan) no longer applies to the new	Due to the size of the Plan Area and the duration of construction, recreation impacts could be significant. Mitigation measures would reduce some construction-related impacts by implementing measures to protect

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		preferred Alternative 4A (or 2D and 5A) because the impacts of the new alternatives will be less than those in the BDCP. The EIR lacks, however, any quantitative assessment of recreation impacts to support this conclusion. On the contrary, a significant reduction in recreation impacts seems unlikely because the extensive areas of restored habitat no longer provided by the preferred alternative would have offered many opportunities for nature-oriented outdoor recreation, while adverse effects from construction of conveyance improvements continue to be significant. Because there will be considerable significant and unavoidable impacts to recreation in the Delta, this environmental commitment should apply to the proposed Alternative 4A.	or compensate for effects on existing recreation opportunities (Mitigation Measure REC-2); effects on wildlife habitat and species (Mitigation Measure BIO-75); minimize the extent of changes to the visual setting (Mitigation Measures AES-1a, AES-1b, AES-1c, AES-1d, AES-1e, AES-1f, AES-1g, AES-4a), including nighttime light sources (Mitigation Measures AES-4b, AES-4c, and AES-4d); manage construction-related traffic (TRANS-1a, TRANS-1b, TRANS- 1c); and implement noise reduction and complaint tracking measures (NOI-1a and NOI-1b). Mitigation measures and environmental commitments would reduce the impacts on wildlife, visual setting, transportation, and noise conditions that could otherwise detract from the recreation experience. However, due to the dispersed effects on the recreation experience across the Delta, it is not certain that mitigation would reduce the level of these impacts to less than significant in all instances. The comment states; "The EIR lacks, however, any quantitative assessment of recreation impacts to support this conclusion". The commenter is correct that the impacts for Rec-2 and Rec-3 are identical for Alternative 4 and 4a. The Lead Agencies have revised the text described in the comment and have updated the commitment to best offset potential uncertain impacts to recreation related to the construction of the proposed water conveyance facilities. Please refer to 3B.3.3, Fund Efforts to Carry out the Recreation Recommendations Adopted in the Delta Plan, of this Final EIR/EIS.
2546	49	The mitigation that applies to the remaining alternatives in Commitment 3B.3.3 is an example of the vague and unenforceable nature of some proposed mitigation measures. Of the six actions listed, three could not feasibly be implemented during the construction period because they either depend on 1) the outcomes of actions that occur during construction (reusable tunnel material); or 2) later actions no longer included in the preferred alternative (Barker Slough restoration). Three others, Wright-Elmwood Tract and Brannan Island SRA [State Responsibility Area] and improvements to the Yolo Bypass Wildlife Area, are distant from the conveyance construction zone where impacts would occur, and therefore do little to lessen or compensate for the project's effects. California State Parks staff familiar with its Central Valley Vision and Delta planning should be consulted to assess how a contribution of funds could facilitate meaningful progress at Delta Meadows-Locke Boarding House.	See response to comment 2546- 48, regarding 3B.3.3. Please note that the language the commenter is referring to describes potential areas considered for the environmental commitment but the environmental commitment is not limited to these areas. As DP R13 states, California State Parks should cooperate with other agencies to improve recreation facilities at Delta Meadows-Locke Boarding House.
2546	50	The Delta's Legacy Communities are valued resources, appreciated by both their residents and by visitors. Special care to protect them is warranted. Construction of the conveyance facilities will result in numerous impacts, which are described in various places throughout the EIR/S. However, the scale of collective impacts in the construction zone over ten or more years of construction is difficult to estimate. Because the collective construction impacts will have a major effect on numerous resource categories, the final EIR/S should aggregate the description of impacts that affect community character associated with each alternative's construction activities in one location and summarize them, including the time frames for each impact. In this aggregation, the final EIR/S should discuss the combined footprint of construction impacts affecting each community, including effects on agriculture, recreation, noise, traffic congestion, aesthetic resources, and cultural resources. Each alternative should be compared to enable improved evaluation of each alternative's direct and indirect effects. These combined effects of construction appear especially adverse at Hood and Clarksburg. Other Legacy Communities along Highway 160 are also likely to suffer adverse effects from declining recreation and tourism and highway congestion. South Delta communities will also be affected, especially by construction-related highway congestion along key routes that link residents of Stockton to jobs in Contra Costa County and the Bay Area. Access between	The way the document is currently organized, by resource topic, rather than by geographical location, meets CEQA and NEPA requirements. Impacts ECON-3, 9, and 15, Chapter 16, of this Final EIR/EIS, describe changes in community character as a result of construction of the proposed water conveyance facilities. This impact explains that construction of water conveyance facilities under Alternative 4A could affect community character in the Delta region during the construction work period. However, because these impacts are social in nature, rather than physical, they are not considered impacts under CEQA. To the extent that changes to community character would lead to physical impacts involving population growth, such impacts are described under Impact ECON-2 and in Chapter 30, "Growth Inducement and Other Indirect Effects," Section 30.3.2. Furthermore, notable decreases in population or employment, even if limited to specific areas, sectors, or the vacancy of individual buildings, could result in alteration of community character stemming from a lack of maintenance, upkeep, and general investment. However, implementation of mitigation measures and environmental commitments related to noise, visual effects, transportation, agriculture, and recreation, would reduce the extent of these effects (see Appendix 3B, Environmental Commitments, AMMs, and CMs). Specifically, these include commitments to develop and implement erosion and sediment control plans, develop and implement hazardous materials management plans, provide notification of maintenance activities in waterways, develop and implement a noise abatement plan, develop and implement a fire prevention and control plan, and prepare and implement mosquito management plans. Implementation of

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		Contra Costa County's Legacy Communities and the urban areas of the county will also be impaired. The recirculated draft EIR/S acknowledges that construction and implementation of the California WaterFix will result in significant changes in character of these communities caused by: 1) declining property values; 2) building abandonment near construction activities with associated loss of tax revenue; and 3) changes in the agricultural landscape, regional economy, labor, and employment (impact AG1, 2, and ECON-1 and 3). The recirculated draft EIR/S also anticipates declining economic stability in communities closest to construction activities, such as Hood and Clarksburg, and in those most heavily influenced by agriculture and recreation, which include the remaining towns along Highway 160 and in eastern Contra Costa County. These indirect and secondary impacts caused by construction of the conveyance facility will have physical effects on the Delta environment that should be more clearly evaluated and mitigated in the final EIR/S. For example, impacts that cause building abandonment are physical impacts that warrant mitigation. Actions to reduce or mitigate adverse impacts should be taken.	mitigation measures, and environmental commitments as outlined in Appendix 3B, related to noise, visual effects, transportation, agriculture, and recreation, would reduce the extent of these effects. While the EIR/EIS does not aggregate impacts by geographical area and timeline, it does analyze all impacts throughout the 26 resource chapters, and in doing so fulfills NEPA and CEQA requirements. To the extent that economic impacts result in reasonably foreseeable adverse physical changes to the environment, they are analyzed throughout this Final EIR/EIS in the related applicable resource chapters (e.g. Aesthetic and visual resources, Noise, Transportation, etc.).
2546	51	The recirculated draft EIR/S highlights that "notable decreases in population or employment, even if limited to specific areas, sectors, or the vacancy of individual buildings, could result in alteration of community character stemming from a lack of maintenance, upkeep, and general investment." The recirculated draft EIR/S offers a list of environmental commitments to reduce these effects (16.3.3.9, pages 16-32, lines 17-19), and Appendix 3B); however, the environmental commitments may be insufficient. Precedents elsewhere from local housing authorities and redevelopment agencies may provide successful examples of mitigation that could be offered to further reduce the effects of these significant changes on the character of Delta communities. Examples from blight elimination programs could offer mitigation for community improvement and enhancement including making contributions toward community facilities, or funding programs to curb foreclosures or to address other conditions, such as flood risk, that also threaten the affected communities. A programmatic approach to mitigating these impacts could be provided through funds contributed to the Delta Investment Fund established in Public Resources Code section 29759. The funds provided to North Coast communities by the Redwood National Park Expansion Act may provide an example for a mitigation program for the Delta.	Impacts ECON-3, 9, and 15, Chapter 16, of this Final EIR/EIS, describe changes in community character as a result of construction of the proposed water conveyance facilities. Construction of water conveyance facilities under Alternative 4A could affect community character in the Delta region. However, because these impacts are social in nature, rather than physical, they are not considered impacts under CEQA. To the extent that changes to community character would lead to reasonably foreseeable physical impacts involving population growth, such impacts are described under Impact ECON-2 and in Chapter 30, Growth Inducement and Other Indirect Effects. Furthermore, notable decreases in population or employment, even if limited to specific areas, sectors, or the vacancy of individual buildings, could result in alteration of community character stemming from a lack of maintenance, upkeep, and general investment. However, implementation of mitigation measures and environmental commitments related to noise, visual effects, transportation, agriculture, and recreation, would reduce the extent of these effects (see Appendix 3B, Environmental Commitments, AMMs, and CMs). Specifically, these include commitments to develop and implement erosion and sediment control plans, develop and implement hazardous materials management plans, provide notification of maintenance activities in waterways, develop and implement a noise abatement plan, develop and implement a fire prevention and control plan, and prepare and implement mosquito management plans. Implementation of mitigation measures and environmental commitments related to noise, visual effects, transportation, agriculture, and recreation, would reduce the extent of these effects such that a significant impact would not occur (see Appendix 3B, Environmental Commitments, AMMs, and CMs). Specifically, these include commitments to develop and implement erosion and sediment control plans, develop and implement hazardous materials management plans, provide notification of maintenance activities in waterways, develop and implement a noise abatement plan, develop and implement a fire prevention and control plan, and prepare and implement mosquito management plans. While the communities in the Delta would experience a change in community character, as described in Impact ECON-3, Chapter 16, of this Final EIR/EIS, the proposed project would also result in an increase in construction-related employment and labor income, which could create net positive effects on the character of Delta communities.
2546	52	Aesthetics: Scenic Highway 160 and other riverside roads are important resources, supporting recreational travel, providing a pleasing backdrop for recreational boating, and contributing to the setting of the Delta's legacy Communities. The recirculated draft EIR/S indicates that permanent visual changes in the riverside landscape near intakes will	Chapter 17 analyzes impacts to visual character under Impact AES-1, scenic vistas under Impact AES-2, and scenic roadways under Impact AES-3 and accounts for impacts to the existing setting that would be seen from local roadways and Scenic Highway SR 160. The visual analysis has come to the finding that a number of proposed project features would result in adverse/significant and unavoidable visual impacts, even with

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		dramatically alter the Delta's scenic character along scenic Highway 160, at Clarksburg, Courtland, and Hood. However, in the current assessment, the magnitude of the visual impacts California WaterFix will have on Highway 160 from both the water and from the road is unclear. The recirculated draft EIR/S' narrative description of impacts should be enhanced with illustrative images of these impacts as viewed by travelers on Scenic Highway 160 and by recreational boaters. The illustrative images should show conditions before construction and impacts both during construction and after construction is complete. The impacts described in table 17B of the recirculated draft EIR/S suggest that at least nine miles of views along Scenic Highway 160's 50 mile length (18 percent) will be affected by construction of the intakes and the rerouting of the highway. Though the recirculated draft EIR/S identifies disrupted views at certain observation points, the description of intakes could better communicate the magnitude of the impacts by quantifying the total length of disrupted views along Scenic Highway 160; the final EIR/S should then offer specific mitigation to offset the impacts consistent with CalTrans' practices for scenic highways and/or the Federal Highway Administration's report Scenic Byways: A Guide for Roadside Improvements.	mitigation, due to the scale of proposed facilities, changes to the visual character of affected lands and communities, and impacts to sensitive viewers. This includes impacts to scenic highways. The analysis addresses how the scenic route would be affected by the proposed project and its alternatives and concludes that there will be significant and unavoidable impacts to the scenic route because of the negative visual effects that would occur. Even if the realignments were not proposed, impacts would still be significant and unavoidable due to the proposed intake facilities that would require tree removal and the introduction of built structures that would negatively affect views from the scenic route. These actions, alone, could affect the scenic highway designation without a realignment of SR 160. Therefore, the only way to ensure SR 160 remains in compliance with the State Scenic Highway Program and the County Circulation Element would be if these changes (i.e., the proposed project) would not occur. Visual mitigation provides measures (Mitigation Measures AES-1a, AES-1c, AES-1e, AES-1f, and AES-1g) to lessen the visual appearance of the proposed project and improve project aesthetics as much as possible but cannot substantially lessen the significant adverse impacts to SR 160 because of the nature of the project, which is why the impacts are significant and unavoidable. Illustrative views of the intakes from Scenic Highway SR 160 are already simulated in Figures 17-76a, 17-76b, 17-77, 17-78, 17-79, 17-86a, 17-86b, and 17-88. The length of road affected by the project does not provide an accurate representation of impacts and the impact analysis does not identify how many miles of SR 160 would be affected. This is because views of the project are affected by season due to the presence and absence of seasonal foliage, the presence and absence of intervening development, distance of the driver from the feature being viewed, direction traveling on the roadway, and curvature/winding nature of the roadway. These factors are tempered by safety considerations such as driving speeds, familiarity with the roadway, and presence or absence of traffic that all affect the duration of viewing times. Therefore, the simulations were used to assess and represent potential impacts because they show various conditions such as being closer to an intake, across from an intake, how the curvature of the roadway and vegetation affects views, etc. Simulations, such as those presented in Figures 17-85 and 17-88, aid in representing what would be seen from the river.
2546	53	The entire Delta region is rich in cultural resources with archeological significance, and the recirculated draft EIR/S identifies major impacts in Chapter 18, most of which are considered significant and unavoidable. While the recirculated draft EIR/S identifies specific sites of cultural value, the final EIR/S should consider whether areas significantly affected by the California WaterFix construction may qualify for consideration as significant cultural landscapes under the Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes. In cases where the impacts would remain significant and unavoidable, the California WaterFix could offer additional mitigation adequate to preserve and protect the Delta's historic and cultural resources. Recognizing that impacts to cultural resources from the California WaterFix will likely be similar to impacts caused by other large infrastructure projects in similar environments, the final EIR/S could draw on experience from other infrastructure projects to describe a range of possible impacts on cultural resources and commit to a range of appropriate mitigation measures. There is precedent from large infrastructure projects across the country under section 106 of the National Historic Preservation Act to provide additional mitigation or compensation for lost cultural resources. For example, the California WaterFix could: -Offer financial support to relocate significant resources to a museum(s). -Support archaeological research by local universities focused in the Delta.	Cultural landscapes are discussed throughout Chapter 18, including Rural Historic Landscapes in the Delta (Section 18.1.7.8). Direct effects of these cultural landscapes are discussed in Section 18.3.2 and Mitigation Measure CUL-6 includes accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68) and the National Park Service's Guidelines for the Treatment of Cultural Landscapes. Lastly, Mitigation Measure CUL-5 specifies consultation and implementation of a Built Environment Treatment Plan (BETP). This BETP will specify property-specific protection, avoidance, and treatment as necessary. Please refer to Master Response 20 for more information on Cultural Resources.

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		-Offer financial support to facilitate the listing of eligible artifacts, sites, or structures on the National Historic Registry. -Offer financial support to preserve or rehabilitate deteriorating buildings and structures of historical significance in the Delta such as in the Locke Historic District, the Japanese School in Clarksburg, or the Bacon Island Road Bridge. The Guidelines developed by the Secretary of the Interior for construction in culturally sensitive landscapes offer an opportunity to better offset project impacts and preserve the Delta's cultural resources than the currently proposed mitigation measures. As written, specific mitigation treatments in the recirculated draft EIR/S are offered on site-by-site, or for nationally- and state-registered buildings or structures, resource-by-resource. However, the Delta's true cultural resources go beyond those identified on the historic registry and the values that make the Delta a special place are not likely to be captured by these piecemeal mitigation measures. The Secretary of the Interior's Guidelines provide direction for the overall treatment and management of the landscape to preserve the Delta's cultural significance as a whole in the face of this large construction project. Using this approach and identifying overarching goals and objectives in the Delta may help ensure that project design, construction, operation, and associated mitigation can be targeted to protect, preserve, and maintain the Delta as an evolving place. An approach in the Delta, for example, could emphasize the region's agricultural sustainability and rural heritage, its unique legacy towns, and its recreational values, amongst others. The overall treatment plan could seek to preserve the ecological diversity and the rural landscapes that attract visitors and residents to the Delta. Construction, operation, and mitigation of the California WaterFix and its environmental commitments could then be implemented in a way that contributes to achieving these goals and objectives.	
2546	54	[ATT1:] Expectations for Impact Assessment of California WaterFix: The Sacramento-San Joaquin Delta presents interconnected issues of water, biological resources, habitat, and levees. Dealing with any one of these problem areas is most usefully considered in light of how it may affect and be affected by the others. The effects of any actions further interact with climate change, sea-level rise, and a host of social, political, and economic factors. The consequences are of statewide importance. These circumstances demand that the California WaterFix EIR/EIS go beyond legal compliance. This EIR/EIS is more than just one of many required reports. Its paramount importance is illustrated by the legal mandate that singles it out as the BDCP document we [Delta Independent Science Board] must review. It follows that the WaterFix EIR/EIS requires extraordinary completeness and clarity. This EIR/EIS must be uncommonly complete in assessing important environmental impacts, even if that means going beyond what is legally required or considering what some may deem speculative (below, p. 4). Further, the WaterFix EIR/EIS must be exceptionally clear about the scientific and comparative aspects of both environmental impacts and project performance (p. 9). These reasonable expectations go largely unmet in the Bay Delta Conservation Plan/California WaterFix Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement Draft (herein, "the Current	DWR appreciates the time and effort the Independent Science Board (ISB) took to review the previous 2013 BDCP Draft EIR/EIS as well as the RDEIR/SDEIS, per the directive of the Delta Reform Act. To frame our responses, the Lead Agencies wish to point out that the primary objective of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) is to disclose to decision makers the environmental impacts of a proposed action and alternatives, evaluating the potential for adverse change to existing conditions and determining if mitigation is available to offset the potential impact. These documents, along with many other developed through the project planning (e.g., engineering, economic and other technical studies) and other environmental compliance processes (e.g., Endangered Species Act, Clean Water Act, and water rights compliance), will serve as the basis for DWR and other agencies' decision on whether to approve the project. To clarify, this Final EIR/EIS is not intended to be the sole document the State and federal agencies will use in its decision-making The Lead Agencies agree that The Sacramento- San Joaquin Delta presents interconnected issues of statewide importance as outlined by the project objectives and purpose and need discussed in Chapter 2, of this Final EIR/EIS. Although this Final EIR/EIS is a lengthy complex document the Lead Agencies are following the appropriate legal process and are complying with CEQA and NEPA in preparing the EIR/EIS for the proposed project. For information regarding length and complexity of the document refer to Master Response 38. The Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600

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		Draft"). We do not attempt to determine whether this report fulfills the letter of the law. But we find the Current Draft sufficiently incomplete and opaque to deter its evaluation and use by decision-makers, resource managers, scientists, and the broader public.	public meetings, working group meetings and stakeholder presentations/Q&As. For information regarding public outreach refer to Master Response 40.
2546	55	[ATT1:] Differences between the BDCP and California WaterFix: The project proposed in the Current Draft differs in significant respects from what was proposed as the BDCP in December 2013. Here we [Delta Independent Science Board] briefly state our understanding of some main differences and comment on their roles on this review: The time period for permitting incidental take under Section 7 of the federal Endangered Species Act (ESA) and Section 208l(b) of the California Endangered Species Act (CESA) is substantially less than the 50 years envisioned as part of a Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) in BDCP. As a result, the science associated with many impacts of climate change and sea-level rise may seem less relevant. The permitting period for the project proposed in the Current Draft remains in place unless environmental baseline conditions change substantially or other permit requirements are not met. Consequently, long-term effects of the proposed project remain important in terms of operations and expected benefits (p. 8).	This comment is a summary of the California WaterFix (Alternative 4A). Through the Section 7 process there is not a defined permitting term, rather the permit remains in place as long as environmental baseline conditions do not change substantially, or other re-initiation triggers are not met related to the inter-agency coordination required under Section 7. The construction of the of the facilities associated with the new alternatives is anticipated to last approximately 10 years, after which project operations will begin. The effects of these proposed alternatives were evaluated at an early-long term baseline (2015) as well as at late-long term (2060).
2546	56	[ATT1:] Differences between the BDCP and California WaterFix: The project proposed in the Current Draft differs in significant respects from what was proposed as the BDCP in December 2013. Here we [Delta Independent Science Board] briefly state our understanding of some main differences and comment on their roles on this review: In this shortened time frame, responsibility for assessing WaterFix's effects on fish and wildlife would fall to resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife). Other impacts would be regulated by a variety of federal and state agencies (Current Draft Section 1).	This comment is a summary of the California WaterFix (Alternative 4A). There are many agencies that will have regulatory authority over various aspects of project implementation. Please see Chapter 1 of this Final EIR/EIS for an overview of permitting agencies and authorities.
2546	57	[ATT1:] Differences between the BDCP and California WaterFix: The project proposed in the Current Draft differs in significant respects from what was proposed as the BDCP in December 2013. Here we [Delta Independent Science Board] briefly state our understanding of some main differences and comment on their roles on this review: The proposed habitat restorations have been scaled back. The Current Draft incorporates elements of 11 Conservation Measures from BDCP to mitigate impacts of construction and operations. Most habitat restoration included in the Previous Draft has been shifted to California EcoRestore. Our review of the Previous Draft contained many comments on the timing of restoration, species interactions, ecological linkages of conservation areas, locations of restoration areas and the science supporting the efficiency and uncertainty of	This comment is a summary of the California WaterFix (Alternative 4A). The current proposed project (Alternative 4A) includes elements of 11 conservation measures from the BDCP. These measures are intended to offset impacts from the construction and operation of the proposed conveyance facilities. Moreover, consistent with BDCP, the conveyance facilitates (“BDCP CM1”) are intended to address ecological conditions of the Delta by reducing entrainment and improving flows.

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		effective restoration. Some of these comments apply less to the Current Draft because of its narrower focus on water conveyance.	
2546	58	[ATT1:] Differences between the BDCP and California WaterFix: The project proposed in the Current Draft differs in significant respects from what was proposed as the BDCP in December 2013. Here we [Delta Independent Science Board] briefly state our understanding of some main differences and comment on their roles on this review: There remains an expected reliance on cooperative science and adaptive management during and after construction.	See response to comment 2546- 7, regarding adaptive management.
2546	59	[ATT1:] Differences between the BDCP and California WaterFix: The project proposed in the Current Draft differs in significant respects from what was proposed as the BDCP in December 2013. Here we [Delta Independent Science Board] briefly state our understanding of some main differences and comment on their roles on this review: It is our understanding that the Current Draft was prepared under rules that disallow scientific methods beyond those used in the Previous Draft. The rules do allow new analyses, however. For example, we noticed evidence of further analyses of contaminants, application of existing methods (e.g., particle tracking) to additional species (e.g., some of the non-covered species), and occasional selection of one model in place of the combined results of two models (e.g., fish life cycle models SALMOD and SacEFT).	This comment is a summary of the California WaterFix (Alternative 4A). CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR when significant new information is added to the EIR after public notice for public review of the Draft EIR, but prior to certification. "Information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of meaningful opportunity to comment upon a substantial adverse environmental effect of the project, or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the Lead Agencies have declined to implement. Nothing in CEQA disallows modifying modeling methodology or adding additional data or information to enhance the environmental analysis in a recirculated draft EIR/supplemental draft EIS.
2546	60	[ATT1:] Improvements on the Previous Draft: Appendix A describes revisions to the resource chapters of the Previous Draft. Track-changed versions of the chapters simplify the review process, although this was not done for the key chapter on aquatic resources (p. 17). We [Delta Independent Science Board] noticed enhanced analyses of contaminants and application of methods such as particle tracking to additional species, including some of the noncovered taxa; a detailed treatment of Microcystis blooms and toxicity; more information about disinfection byproducts; improved discussion of vector control arising from construction and operational activities; and revised depiction of surficial geology. Potential exposure of biota to selenium and methylmercury is now considered in greater detail. Evaluations will be conducted for restoration sites on a site-specific basis; if high levels of contaminants cannot otherwise be addressed, alternative restoration sites will be considered (page 4.3.8-118). Incidentally, this is a good example of adaptive management, although it is not highlighted as such. Explanations were provided for why the nitrogen-to-phosphorus ratio was not specifically evaluated, why dissolved vs. total phosphorus was used in the assessment, and how upgrades to the Sacramento Regional Wastewater Treatment Plant would eventually affect phosphorus concentrations.	This comment is a summary of the California WaterFix (Alternative 4A). For more details on water quality impacts refer to Chapter 8 of this Final EIR/EIS. Please refer to Master Response 14 regarding water quality.

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2546	61	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Details on adaptive management and collaborative science.	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546- 69. In regard to current concerns on levees refer to comment 2546- 63. In regard to current concerns on long-term effects refer to comment 2546- 64. In regard to current concerns on presentation refer to comment 2546-67. In regard to missing content refer to comment 2546- 54. See response to comment 2546- 7, regarding adaptive management.
2546	62	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Modeling how levee failures would affect operation of dual-conveyance systems. Steve Centerwall [of ICF] told us [Delta Independent Science Board] on August 14 that modeling of the effects of levee failure would be presented in the Final Report.	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to comment 2546-63. In regard to current concerns on long-term effects refer to comment 2546-64. In regard to current concerns on presentation refer to comment 2546-67. In regard to missing content refer to comment 2546-54. Please see Master Response 16 regarding operations under a potential levee failure scenario. Also, see Appendix 6A in the FEIR/EIS for information on project consistency with flood protection standards and regulations in the Delta. Levees are an important public safety resource and the proposed project will not change levee policy or replace ongoing programs and grant projects aimed at facilitating and supporting levee improvements in or outside the Delta. It is recognized that levee maintenance and safety in the Delta is an important issue for the residents of the Delta and for statewide interests.
2546	63	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content:	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to 2546-63. In regard to current concerns on long-term effects refer to 2546- 64. In regard to current concerns on presentation refer to comment 2546- 67. In regard to missing content refer to comment 2546- 54. Levee maintenance activities will vary between project levees (levees that are or will be part of a federal flood control project) and non-project levees (levees that will not be part of a federal flood control project). For segments of project levees constructed or modified by a project alternative, Lead Agencies will pay for

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		The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Analysis of whether operation of the proposed conveyance would alter the economics of levee maintenance.	operations and maintenance, either directly or indirectly through agreements with local agencies. All applicable operations and maintenance standards and manuals will apply, including, but not limited to, FEMA requirements for maintenance pursuant to agency authority under the National Flood Insurance Plan, and USACE requirements pursuant to Public Law 84-99. For non-project levees constructed or modified by a project alternative, construction or modification will meet USACE Delta-specific Public Law 84-99 design standards Lead Agencies will pay for operation and maintenance, either directly or indirectly through agreements with local agencies. All applicable operations and maintenance standards and manuals will apply, including, but not limited to, FEMA requirements for maintenance pursuant to agency authority under the National Flood Insurance Plan, and USACE requirements pursuant to Public Law 84-99. In addition, construction plans may need to be reviewed and approved by Reclamation District engineers. For more information see Appendix 6A, BDCP/California WaterFix Coordination with Flood Management Requirements, of this Final EIR/EIS.
2546	64	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Analyses of the effects of climate change on expected water exports from the Delta. "[A]n explanation and analysis describing potential scenarios for future SWP/CVP system operations and uncertainties [related to climate change] will be provided in the Final Report" (p. l-35 of the Current Draft).	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to 2546-63. In regard to current concerns on long-term effects refer to 2546- 64. In regard to current concerns on presentation refer to comment 2546- 67. In regard to missing content refer to comment 2546- 54. A new appendix, Appendix 29D, Potential Future SWP/CVP Operations in Response to Climate Change Conditions, is included as part of this Final EIR/EIS and discusses environmental management and regulation in response to climate change.
2546	65	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project.	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to 2546-63. In regard to current concerns on long-term effects refer to 2546- 64. In regard to current concerns on presentation refer to comment 2546- 67. In regard to missing content refer to comment 2546- 54. See response to comment 2546- 64, regarding impacts of climate change on operations.

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		Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Potential impacts of climate change on system operations, even during the shortened time period emphasized in the Current Draft.	
2546	66	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Potential effects of changes in operations of the State Water Project (SWP) and Central Valley Project (CVP), or other changes in water availability, on agricultural practices in the San Joaquin Valley.	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to 2546-63. In regard to current concerns on long-term effects refer to 2546- 64. In regard to current concerns on presentation refer to comment 2546- 67. In regard to missing content refer to comment 2546- 54. Please refer to Section 30.3.4.1, Agricultural Contractor Export Service Areas, Chapter 30, of this Final EIR/EIS. This section describes potential indirect effects of reductions in SWP and CVP deliveries to Export Service Areas resulting from implementation of the project, including increases in cost of water, using empirical evidence from past behavior of agricultural and M&I contractors to increases in cost of water. The issue of crops and water use is beyond the scope of the proposed project. For more information please refer to the updated California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use.
2546	67	[ATT1:] Current Concerns: Strengths of the Current Draft are outweighed by several overarching weaknesses: overall incompleteness through deferral of content to the Final EIR/EIS (herein, "the Final Report"); specific incompleteness in treatment of adaptive management, habitat restoration, levees, and long-term effects; and inadequacies in presentation. Missing Content: The Current Draft lacks key information, analyses, summaries, and comparisons. The missing content is needed for evaluation of the science that underpins the proposed project. Accordingly, the Current Draft fails to adequately inform weighty decisions about public policy. The missing content includes: Concise summaries integrated with informative graphics. The Current Draft states that comparisons of alternatives will be summarized in the Final Report (p. 1-35). While some of the missing content has been deferred to the Final Report, other gaps have been rationalized by deeming impacts "too speculative" for assessment. CEQA guidance directs	In regard to current concerns on adaptive management refer to comment 2546-7. In regard to current concerns on habitat restoration refer to comment 2546-69. In regard to current concerns on levees refer to 2546-63. In regard to current concerns on long-term effects refer to 2546- 64. In regard to current concerns on presentation refer to comment 2546- 67. In regard to missing content refer to comment 2546- 54. A summary comparison of alternatives is now provided at the beginning of each of the Final EIR/EIS resource chapters and the longest and most complex chapters include a Readers' Guide to help navigate through the materials and provide an outline for the chapter. See Master Response 38 for information on the length and complexity of the document. An EIR/EIS should not be speculative. CEQA specifically directs an agency not to speculate and to terminate discussion of an impact where it is too speculative for evaluation. See response to comment 2546- 63 for levees and 66 for San Joaquin Valley agriculture.

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		agencies to avoid speculation in preparing an EIR/EIS. [Footnote 7: https://s3.amazonaws.com/californiawater/pdfs/bo0lx_Delta_ISB_Draft_Statement_&_Response_Letter_-_Enos_-_FINAL.pdf] To speculate, however, is to have so little knowledge that a finding must be based on conjecture or guesswork. Ignorance to this degree does not apply to potential impacts of WaterFix on levee maintenance or on San Joaquin Valley agriculture. Even if content now lacking would go beyond what is legally required for an EIR/EIS, providing such content could assist scientists, decision-makers, and the public in evaluating California Water Fix and Delta problems of statewide importance.	
2546	68	[ATT1:] Adaptive management: The guidelines for an EIR/EIS do not specifically call for an adaptive management plan (or even for adaptive management). However, if the project is to be consistent with the Delta Plan (as legally mandated), adaptive management should be part of the design. The Current Draft relies on adaptive management to address uncertainties in the proposed project, especially in relation to water operations. The development of the Current Draft from the Previous Draft is itself an exercise in adaptive management, using new information to revise a project during the planning stage. Yet adaptive management continues to be considered largely in terms of how it is to be organized (i.e., coordinated with other existing or proposed adaptive management collaborations) rather than how it is to be done (i.e., the process of adaptive management). Adaptive management should be integral with planned actions and management -- the Plan A rather than a Plan B to be added later if conditions warrant. The lack of a substantive treatment of adaptive management in the Current Draft indicates that it is not considered a high priority or the proposers have been unable to develop a substantive idea of how adaptive management would work for the project. There is a very general and brief mention of the steps in the adaptive management process in Section 4 (p. 4.1-6 to 4.1-7), but nothing more about the process. We [Delta Independent Science Board] were not looking here for a primer on adaptive management. Rather, we expected to find serious consideration of barriers and constraints that have impeded implementation of adaptive management in the Delta and elsewhere (which are detailed in the Delta Plan), along with lessons learned on how adaptive management can be conducted [to] overcome these problems. The Current Draft contains general statements on how collaborative science and adaptive management under California WaterFix would be linked with the Delta Collaborative Science and Adaptive Management Program (CSAMP) and the Collaborative Adaptive Management Team (CAMT). These efforts, however, have taken place in the context of regulations and permits, such as biological opinions and biological assessments required under the Endangered Species Act. We did not find examples of how adaptive management would be applied to assessing -- and finding ways to reduce -- the environmental impacts of project construction and operations. Project construction, mitigation, and operations provide many opportunities for adaptive management, both for the benefit of the project as well as for other Delta habitat and ecosystem initiatives, such as EcoRestore. To be effective in addressing unexpected outcomes and the need for mid-course corrections, an adaptive-management management	As recommended, DWR has continued consultation with Delta Stewardship Council staff through the completion of this Final EIR/EIS and will continue through possible certification of consistency. See response to comment 2546- 7, regarding adaptive management.

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		team should evaluate a broad range of actions and their consequences from the beginning, as plans are being developed, to facilitate the early implementation and effectiveness of mitigation activities. The Current Draft defers details on how adaptive management will be made to work: "An adaptive management and monitoring program will be implemented to develop additional scientific information during the course of project construction and operations to inform and improve conveyance facility operational limits and criteria" (p. ES-17). This is too late. If adaptive management and monitoring are central to California WaterFix, then details of how they will be done and resourced should be developed at the outset (now) so they can be better reviewed, improved, and integrated into related Delta activities. The details could include setting species-specific thresholds and timelines for action, creating a Delta Adaptive Management Team, and capitalizing on unplanned experiments such as the current drought. [Footnote 8: http://deltacouncil.ca.gov/docs/adaptive-management-report-v-8] Illustrative examples could use specific scenarios with target thresholds, decision points, and alternatives. The missing details also include commitments and funding needed for science-based adaptive management and restoration to be developed and, more importantly, to be effective. The protracted development of the BDCP and its successors has provided ample time for an adaptive-management plan to be fleshed out. The Current Draft does little more than promise that collaborations will occur and that adaptive management will be implemented. This level of assurance contrasts with the central role of adaptive management in the Delta Plan and with the need to manage adaptively as climate continues to change and new contingencies arise.	
2546	69	[ATT1:] Restoration as mitigation: Restoration projects should not be planned and implemented as single, stand-alone projects but must be considered in a broader, landscape context. We [Delta Independent Science Board] highlighted the landscape scale in our review of the Previous Draft and also in an earlier review of habitat restoration in the Delta. [Footnote 9: http://deltacouncil.ca.gov/sites/default/files/documents/files/HABITAT%20RESTORATION%20REVIEW%20FINAL.pdf] A landscape approach applies not just to projects that are part of EcoRestore, but also to projects envisioned as mitigation in the Current Draft, even though the amount of habitat restoration included (as mitigation) in the Current Draft has been greatly reduced. On August 13 and 14, representatives of WaterFix and EcoRestore acknowledged the importance of the landscape scale, but the Current Draft gives it little attention. Simply because the CEQA and NEPA guidelines do not specifically call for landscape-level analyses is not a sufficient reason to ignore them.	The Environmental Commitments presented as part of Alternatives 4A, 2D and 5A are incorporated into these alternatives to reduce the potential for habitat and other effects on Delta habitat and ecosystem conditions. The habitat acreages described for these alternatives will be implemented according to restoration and protection principles as presented in Table 3-12. Terrestrial Biology Resource Restoration and Protection Principles for Implementing Environmental Commitments, of this Final EIR/EIS. Implementing the Environmental Commitments or the separate California EcoRestore program does not preclude considering an appropriately broad landscape scale.
2546	70	[ATT1:] Wetland restoration is presented as a key element of mitigation of significant impacts. We [Delta Independent Science Board] noticed little attention to the sequence required for assessing potential impacts to wetlands: first, avoid wetland loss; second, if wetland loss cannot be avoided, minimize losses; and third, if avoidance or minimization of wetland loss is not feasible, compensate. Much of the emphasis in the Current Draft is on the third	As stated in the Section 404 Clean Water Act permit application, DWR has designed the proposed project to avoid impacts to Waters of the United States to the maximum extent practicable and has developed measures to minimize any unavoidable impacts. Numerous iterations of footprint locations for each of the conveyance components were evaluated to maximize the use of upland areas. DWR will submit a plan to the Corps that sets out an approach to mitigating for any unavoidable impacts to waters, including an assessment of the functions and values that will be provided by such mitigation to meet the “no net loss” goal established by the Corps and the Environmental Protection Agency. DWR will also submit to the Corps

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		element. Sequencing apparently will be addressed as part of the permitting process with the US Army Corps of Engineers (USACE) for mitigation related to the discharge of dredged or fill material. [Footnote 10: Letter from Cassandra Enos-Nobriga, DWR, September 21, 2015.] However, it is difficult to evaluate the impacts on wetlands in advance of a clarification of sequencing and criteria for feasibility.	an analysis of alternatives to the proposed project to assist the Corps in its determination whether the Section 404 Guidelines have been met. Several of the Avoidance and Minimization Measures (AMMs), identified in the July 2015 SDEIS, will serve to avoid and minimize impacts to wetlands and other waters of the US. These include: AMM2 - Construction Best Management Practices and Monitoring, AMM3 - Stormwater Pollution Prevention Plan, AMM4 - Erosion and Sediment Control Plan, AMM5 - Spill Prevention, Containment, and Countermeasure Plan, AMM6 - Disposal and Reuse of Spoils, Reusable Tunnel Material, and Dredged Material, AMM7 - Barge Operations Plan, AMM10 - Restoration of Temporarily Affected Natural Communities, AMM12 - Vernal Pool Crustaceans, AMM30 - Transmission Line Design and Alignment Guidelines, AMM34 - Construction Site Security, and AMM36 - Notification of Activities in Waterways. These AMMs will be implemented at all phases of the Project, including siting, design, construction, and operations and maintenance. Additional measures that will be implemented to avoid and minimize impacts to species which utilize aquatic habitats such as California tiger salamander, giant garter snake, California red legged frog, western pond turtle, riparian woodrat, and riparian brush rabbit, will also serve to reduce Project impacts to wetlands and other waters of the US.
2546	71	[ATT1:] Mitigation ratios: Restoring a former wetland or a highly degraded wetland is preferable to creating wetlands from uplands. [Footnote 11: http://www.nap.edu/openbook.php?isbn=0309074320] When an existing wetland is restored, however, there is no net gain of area, so it is unclear whether credits for improving existing wetlands would be considered equivalent to creating wetlands where they did not recently exist. In view of inevitable shortcomings and time delays in wetland restorations, mitigation ratios should exceed 1:1 for enhancement of existing wetlands. The ratios should be presented, rather than making vague commitments such as "restore or create 37 acres of tidal wetland. . ." The Final Draft also needs to clarify how much of the wetland restoration is out-of-kind and how much is in-kind replacement of losses. It should examine whether enough tidal area exists of similar tidal amplitude for in-kind replacement of tidal wetlands, and whether such areas will exist with future sea-level rise. We [Delta Independent Science Board] agree that out-of-kind mitigation can be preferable to in-kind when the trade-offs are known and quantified and mitigation is conducted within a watershed context, as described in USACE [U.S. Army Corps of Engineers]'s 2010 guidance for compensatory wetland mitigation. [Footnote 12: http://www.sac.usace.army.mil/Portals/43/docs/regulatory/Guidelines_for_Preparing_a_Compensatory_Mitigation_Plan.pdf] Since then, many science-based approaches have been developed to aid decision-making at watershed scales, including the 2014 Watershed Approach Handbook produced by the Environmental Law Institute and The Nature Conservancy. [Footnote 13: https://www.eli.org/sites/default/files/eli-pubs/watershed-approach-handbook-improving-outcomes-and-increasing-benefits-associated-wetland-and-stream_0.pdf]	The commenter's concern that timing and details are not provided is addressed in Mitigation Measure BIO-176, Compensatory Mitigation for Fill of Waters of the U.S., discussed in Chapter 12 of this Final EIR/EIS. Mitigation Measure Bio-176 provides mitigation to compensate for significant impacts on wetlands. The mitigation commits the Lead Agencies to compensate for impacts on wetlands and sets a performance standard of no net loss of wetland functions and values. Although specific details of the mitigation have not yet been determined, all mitigation proposed as compensatory mitigation would be subject to specific success criteria, success monitoring, long-term preservation, and long-term maintenance and monitoring pursuant to the requirements of the U.S. Army Corps of Engineers Mitigation Rule.
2546	72	[ATT1:] Restoration timing and funding: To reduce uncertainty about outcomes, allow for beneficial and economical adaptive	The specific nature of restoration to be undertaken as mitigation (i.e. mitigation banks, etc.) cannot be determined at this time but will be subsequently determined in consultation with the pertinent regulatory agencies and in a watershed context.

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		management, and allow investigators to clarify benefits before the full impacts occur, mitigation actions should be initiated as early as possible. Mitigation banks are mentioned, but are any operational or planned for operation soon? The potential for landowners to develop mitigation banks could be encouraged so restoration could begin immediately, engendering better use of local knowledge, financial profit, and local support for the project. We [Delta Independent Science Board] are told that the timing of mitigation will be coordinated with other review processes that are currently ongoing. [Footnote 6: http://deltacouncil.ca.gov/docs/response-letter-dwr]	
2546	73	[ATT1:] Levees: A comprehensive assessment of environmental impacts should relate California WaterFix to levee failure by examining the consequences each may have for the other. The interplay between conveyance and levees is receiving additional attention through the Delta Levee Investment Strategy. On the one hand, the Current Draft fails to consider how levee failures would affect the short-term and long-term water operations spelled out in Table 4.1-2. A rough estimate was proposed under the Delta Risk Management Study [Footnote 14: http://www.water.ca.gov/floodmgmt/dsmo/sab/drmsp/docs/Delta_Seismic_Risk_Report.pdf] and another is part of a cost-benefit analysis for the BDCP. [Footnote 15: http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_ 8513.sflb.ashx] The Final Report should provide analyses that incorporate these estimates. On the other hand, the Current Draft also fails to consider how implementing the project would affect the basis for setting the State's priorities in supporting Delta levee maintenance. This potential impact is illustrated by a recent scoring system of levee-project proposals that awards points for expected benefits to "export water supply reliability." [Footnote 16: http://www.water.gov/floodsafe/fessro/docs/special_PSP14_final.pdf] Further efforts to quantify these benefits have been recommended as part of a comprehensive risk assessment that would guide the Delta Levees Investment Strategy. [Footnote 17: http://deltacouncil.ca.gov/docs/delta-levee-investment-strategy/dlis-peer-review-technical-memorandum-31] Public Safety, a focus of the Delta Flood Emergency Management Plan [Footnote 18: http://water.ca.gov/floodmgmt/hafoo/fob/dreprrp/InterdepartmentalDraftDFEMP-2014.pdf], is just one asset that levees protect. The Current Draft does not evaluate how the proposed project may affect estimates of the assets that the levees protect. The Current Draft cites levee fragility mainly as a reason to build isolated conveyance for Sacramento River water (examples, p. 1-1, 1-7, 1-9). In a similar vein, the California WaterFix website states, "Aging dirt levees are all that protect most of California's water supplies from the affects [sic] of climate change. Rising sea levels, intense storms, and floods could all cause these levees to fail, which would contaminate our fresh water with salt, and disrupt water service to 25 million Californians." [Footnote 19: http://www.californiawaterfix.com/problem] Neither the Previous Draft nor the Current Draft, however, provides a resource chapter about Delta levees. Such a chapter would be an excellent place to examine interacting impacts of conveyance and levees.	See response to comment 2546- 62, regarding consideration of how levee failures would affect water operations. See Appendix 6A in this Final EIR/EIS for information on project consistency with flood protection standards and regulations in the Delta. Levees are an important public safety resource and the proposed project will not change levee policy or replace ongoing programs and grant projects aimed at facilitating and supporting levee improvements in or outside the Delta. It is recognized that levee maintenance and safety in the Delta is an important issue for the residents of the Delta and for statewide interests.
2546	74	[ATT1:]	Where there are potential long term impacts that differ from the shortened time period, the analysis has

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		Long-term effects: With the shortened time period, several potential long-term impacts of or on the proposed project no longer receive attention. While these effects may not become problematic during the initial permit period, many are likely to affect project operations and their capacity to deliver benefits over the long operational life of the proposed conveyance facilities. In our [Delta Independent Science Board's] view, consideration of these long-term effects should be part of the evaluation of the science foundation of the proposed project. The No Action Alternative establishes the baseline for evaluating impacts and benefits of the proposed alternative(s). It is therefore important to consider carefully how the baseline is established, as this can determine whether particular consequences of the alternatives have costs or benefits. Climate change, for example, is considered under the No Action Alternative in the Current Draft, as is sea level rise. Climate change is expected to reduce water availability for the proposed northern intakes, and both climate change and sea level rise are expected to influence tidal energy and salinity intrusion within the Delta. [Footnote 20: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0024465] Changes in water temperature may influence the condition of fishes that are highly temperature-dependent in the current analyses. These environmental effects, in turn, are likely to influence environmental management and regulation; from the standpoint of water quality they may even yield environmental benefits if agricultural acreage decreases and agricultural impacts are reduced. Rather than consider such effects, however, the Current Draft focuses on how the proposed project would affect "the Delta's resiliency and adaptability to expected climate change" (Current Draft section 4.3.25). Quite apart from the fact that "resiliency" and "adaptability" are scarcely operational terms, the failure to consider how climate change and sea level rise could affect the outcomes of the proposed project is a concern that carries over from our 2014 review and is accentuated by the current drought.	disclosed this (see for example, Chapter 5, Section 5.3.4.2 discussion of changes at LLT). Because climate change and sea level rise are incorporated into the No Action Alternative as well as modeling of any of the proposed alternatives, the analysis of each of the alternatives discusses the impacts of these conditions on terrestrial and aquatic resources. Additionally, a new appendix, Appendix 29D, Potential Future SWP/CVP Operations in Response to Climate Change Conditions, is included as part of this Final EIR/EIS and discusses environmental management and regulation in response to climate change.
2546	75	[ATT1:] The Current Draft states that "Groundwater resources are not anticipated to be substantially affected in the Delta Region under the No Action Alternative (ELT [Early Long Term]) because surface water inflows to this area are sufficient to satisfy most of the agricultural, industrial, and municipal water supply needs" (p. 4.2-16). This conclusion is built on questionable assumptions; the current drought illustrates how agriculture turns to groundwater when surface-water availability diminishes. Groundwater regulation under the recently enacted Sustainable Groundwater Management Act (SGMA) can also be expected to have long-term effects on the proposed project -- effects that the Current Draft does not assess. Ending of more than a million acre-feet of overdraft in the southern Central Valley under the SGMA is likely to increase demand for water exports from the Delta in the coming decades. The Current Draft discusses the potential effects of the project on groundwater (for example, in Sections 4.3.3 and 5.2.2.3), but we found only two brief, descriptive mentions of SGMA in the 235 pages of Section 5. The implications of prolonged droughts (e.g., on levee integrity) and of the consequences of SGMA receive too little attention in the Current Draft.	Please refer to Section 7.3.3.1, Chapter 7, of this Final EIR/EIS for a discussion on The No Action Alternative ground water impacts. The No Action Alternative includes continued implementation of SWP/CVP operations, maintenance, enforcement, and protection programs by federal, State, and local agencies, as well as projects that are permitted or under construction. A complete list and description of programs and plans considered under the No Action Alternative is provided in Appendix 3D, Defining Existing Conditions, No Action Alternative, No Project Alternative, and Cumulative Impact Conditions. The Sustainable Groundwater Management Act (SGMA) is included in the No Action Alternative and is described in both Chapter 7 and Appendix 3D.
2546	76	[ATT1:] The Current Draft suggests that unnamed "other programs" that are "separate from the	State and Federal agencies developed the modified proposed project (Alternative 4A/California WaterFix) in response to public and agency input. While Alternative 4A remains a viable alternative, Alternative 4A reflects the State's proposal to separate the conveyance facility and habitat restoration measures into two

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		proposed project" will use elements of the Previous Draft to implement long-term conservation efforts that are not part of California WaterFix (Current Draft, p. 1-3). The Final Report should provide assurances that such other programs will step in, and could go further in considering their long-term prospects.	separate efforts: California WaterFix and California EcoRestore. The Preferred Alternative includes habitat restoration as necessary to mitigate significant environmental effects and satisfy applicable ESA and CESA standards. Note that many of the actions that are part of the BDCP conservation strategy but not proposed to be implemented under the non-HCP alternatives would continue to be pursued as part of existing but separate projects and programs associated with 1) the 2008 USFWS and 2009 NMFS BiOps (e.g., Yolo Bypass improvements and habitat enhancements, 8,000 acres of tidal habitat restoration), 2) California EcoRestore, and 3) the 2014 California Water Action Plan. Those actions are separate from, and independent of, the proposed project. Therefore, for the purposes of the non-HCP alternatives, these elements (and their associated environmental effects) are considered either as part of the No Action Alternative, as described in Section 3.5.17, No Action Alternative ELT, or as part of the cumulative impact analysis, as described in Chapter 4, Section 4.2.5.2, Cumulative Effects Analysis.
2546	77	[ATT1:] Informative summaries and comparisons: According to guidance for project proponents, "Environmental impact statements shall be written in plain language and may use appropriate graphics so that decision-makers and the public can readily understand them" (Code of Federal Regulations, 40 CFR 1502.8). Far-reaching decisions should not hinge on environmental documents that few can grasp. This guidance applies all the more to an EIR/EIS of the scope, complexity, and importance of the Current Draft. It demands excellent comparative descriptions of alternatives that are supported by readable tables and high-quality graphics, enumeration of major points, well-organized appendices, and integration of main figures with the text. For policy deliberations, the presentation of alternatives should include explicit comparisons of water supply deliveries and reliabilities as well as economic performance. For decision-makers, scientists, and the public, summaries of impacts should state underlying assumptions clearly and highlight major uncertainties. The Current Draft is inadequate in these regards. The Previous Draft provided text-only summaries for just the two longest of its resource chapters (Chapters 11 and 12). A fragmentary comparison of alternatives was buried in a chapter on "Other CEQA/NEPA required sections" (part 3 of Chapter 31) but fell far short of what was needed. Both the Previous and Current Drafts have been accompanied by a variety of outreach products for broad audiences (e.g., the descriptive overview of the BDCP Draft EIR/EIS). [Footnote 21: Highlights+of+the+Draft+EIS-EIR+12-9-13.pdf] These products do little to compensate for the overall paucity of readable summaries and comparisons in the Previous and Current Drafts. For over three years, the Delta ISB [Independent Science Board] has been specifically requesting summaries and comparisons: first in June 2012 [Footnote 22: http://deltacouncil.ca.gov/sites/default/files/documents/files/DISB_Letter_to_JMeral_and_DHoffman-Floerke_061212.pdf], then in June 2013 [Footnote 23: http://deltacouncil.ca.gov/sites/default/files/documents/files/DISB%20Comments%20on%20Draft%20BDCP%20Document.doc_.pdf], and again in a review of the Previous Draft in May 2014 (footnote 1, p. 1). Appallingly, such summaries and comparisons remain absent in the Current Draft. The generally clear writing in Sections 1 through 4 shows that the preparers are capable of providing the requested summaries and comparisons. Prescriptions in CEQA and NEPA in no way exclude cogent summaries, clear comparisons, or informative graphics. And three years is more than enough time to have developed them.	Please see Master Response 38 regarding length and complexity of the BDCP/California WaterFix EIR/EIS. A summary comparison of alternatives is now provided at the beginning of each of these Final EIR/EIS resource chapters and the longest and most complex chapters include a Readers' Guide to help navigate through the materials and provide an outline for the chapter.

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		On August 14, 2015, representatives of California WaterFix assured us that this kind of content would eventually appear, but only in the Final Report. That will be far too late in the EIR/EIS process for content so critical to comprehending what is being proposed and its potential impacts.	
2546	78	[ATT1:] Prior Concerns and Their Relevance to the Current Draft: The Delta ISB [Independent Science Board (DISB)] review of May 14, 2014 emphasized eight broad areas of concern about the scientific basis for the Previous Draft. While the reduced scope of the proposed project has reduced the relevance of some issues, particularly habitat restoration and other conservation measures, other concerns persist. Our [DISB's] persistent concerns include the treatment of uncertainty, the implementation of adaptive management, and the use of risk analysis. These topics receive little or no further attention in the Current Draft. We also found few revisions in response to points we raised previously about linkages among species, ecosystem components, or landscapes; the potential effects of climate change and sea-level rise; and the potential effects of changes in water availability on agricultural practices and the consequent effects on the Delta. Our previous comments about presentation also pertain.	See response to comment 2546-7, regarding adaptive management. For information on climate change, please see Master Response 19. Also see response to comment 2546-66, regarding water availability.
2546	79	[ATT1:] Effectiveness of conservation actions: Our [Delta Independent Science Board's] 2014 review found that many of the impact assessments hinged on optimistic expectations about the feasibility, effectiveness, or timing of the proposed conservation actions, especially habitat restoration. This is arguably less of a concern now, given the substantially shorter time frame of the revised project and narrower range of conservation actions designed for compensatory restoration. Nonetheless, the Current Draft retains unwarranted optimism, as on page 4.3.25-10: "By reducing stressors on the Delta ecosystem through predator control at the north Delta intakes and Clifton Court Forebay and installation of a nonphysical fish barrier at Georgiana Slough, Alternative 4A will contribute to the health of the ecosystem and of individual species populations making them stronger and more resilient to the potential variability and extremes caused by climate change." A scientific basis for this statement is lacking, and an adaptive or risk-based management framework is not offered for the likely event that such optimism is unfulfilled. Is it feasible for even the reduced amounts of mitigation and restoration to be completed within the time period proposed? Perhaps yes. Is it feasible that these actions will mitigate impacts over the long term? This is more problematic. To be effective, mitigation actions should deal with both the immediate and long-term consequences of the project. The proposed permitting should allow for monitoring long enough to assess the effectiveness of habitat restoration measures, which will need to extend beyond the initial permitting period.	Environmental Commitment 16: Nonphysical Fish Barrier would be implemented to address effects related to survival of outmigrating juvenile salmonids by installing a nonphysical barrier at Georgiana Slough to redirect fish away from channels and river reaches in which survival is lower than in alternate routes. Implementation of this action would be consistent with the revised description of CM16 (see Appendix 11F, Substantive BDCP Revisions); however, for the purposes of Alternatives 4A, 2D and 5A, this action would be applied only to Georgiana Slough. This commitment would mitigate for effects on salmonid survival associated with operation of north Delta intakes and associated flows. The adaptive management and monitoring program is designed to improve the effectiveness and efficiency of implementing key mitigation measures surrounding biological resources. The adaptive management and monitoring program will not be used to verify the conclusions in the RDEIR/SDEIS or Final EIR/EIS (e.g., verify a lack of impacts to upstream areas). The proposed adaptive management and monitoring program will be developed and implemented collaboratively with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife through the development of the Biological Opinion, and State incidental take permit. Further development and refinements to this adaptive management and monitoring program are expected during the early years of project implementation. See response to comments 2546- 7, regarding adaptive management. For information on habitat restoration, please see response to comments 2546-3 and 2546-25.
2546	80	[ATT1:]	The need for better representation of uncertainty in model outputs was reiterated in an independent review panel report for the 2016 California WaterFix Aquatic Science Peer Review. This was undertaken where possible in the effects analysis for the Final BA by incorporating panel suggestions to include, for example,

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		Uncertainty: The 2014 [Delta Independent Science Board (DISB)] review found the BDCP encumbered by uncertainties that were considered inconsistently and incompletely. We [DISB] commented previously that modeling was not used effectively enough in bracketing uncertainties or exploring how they may propagate or be addressed. In the Current Draft, uncertainties and their consequences remain inadequately addressed, improvements notwithstanding. Uncertainties will now be dealt with by establishing "a robust program of collaborative science, monitoring, and adaptive management" (ES 4.2). No details about this program are provided, so there is no way to assess how (or whether) uncertainties will be dealt with effectively. Although sensitivity modeling was used to address the effects of changes in the footprint and other minor changes of the revised project, full model runs were not carried out to assess the overall effects of the specific changes. Consequently, modeling that would help to bracket ranges of uncertainties or (more importantly) assess propagation of uncertainties is still inadequate. Many of our prior concerns about uncertainties pertained to impacts on fish. If those uncertainties have now been addressed in Chapter 11, they are difficult to evaluate because changes to that chapter have not been tracked in the public draft. There are also uncertainties with the data generated from model outputs, although values are often presented with no accompanying error estimates. This situation could be improved by presenting results from an ensemble of models and comparing the outputs.	prediction intervals for regressions predicting biological outcomes, or by acknowledging more clearly when uncertainty was not explicitly considered (e.g., with footnotes in figures). The modeling analysis used to inform hydrodynamic based impacts of Alternative 4A is presented in Appendix 11G, Supplemental Modeling Results for New Alternatives, of this Final EIR/EIS. This appendix summarizes the sensitivity analyses performed for Alternative 4A compared to Alternative 4 to understand the incremental changes between these two similar alternatives. The results of this analysis indicate that modeling results for Alternative 4 and 4A are similar. Uncertainty and limitations that may be inherent in the CALSIM II tool is presented in Appendix 5A of this Final EIR/EIS. For the purposes of CEQA and NEPA, these uncertainties are disclosed as well as the comparative vs. predictive nature of this modeling tool. Please see Section A, Modeling Methodology and Section C related to appropriate use of modeling results. The amylases are presented within the context of these disclosed uncertainties; therefore, these uncertainties are not always repeated when alternative impacts are presented.
2546	81	[ATT1:] Effects of climate change and sea-level rise on the proposed actions: Our [Delta Independent Science Board's] 2014 review stated concerns that the Previous Draft underestimated effects of climate change and sea level rise across the 50-year timeline of the BDCP. With the nominal duration shortened substantially, most of the projected impacts of climate change and sea level rise may occur later. But climate-related issues remain. First, the Current Draft is probably outdated in its information on climate change and sea level rise. It relies on information used in modeling climate change and sea level rise in the Previous Draft, in which the modeling was conducted several years before December 2013. The absence of the climate change chapter (Chapter 29) in the Previous Draft from Appendix A in the Current Draft indicates that no changes were made. In fact, the approaches and assumptions in the Current Draft remained unchanged from the Previous Draft in order to ensure consistency and comparability across all the Alternatives, even though newer scientific information had become available. [Footnote 6: http://deltacouncil.ca.gov/docs/response-letter-dwr] Yet climatic extremes, in particular, are a topic of intense scientific study, illustrated by computer simulations of ecological futures [Footnote 24: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0024465] and findings about unprecedented drought. [Footnote 25: Cook, B.I., Ault, T.R., and Smerdon, J.E., 2015, Unprecedented 21st century drought risk in the American Southwest and Central Plains: Science Advances, v. 1, doi:10.1126/sciadv.1400082.] The Current Draft does not demonstrate consideration of recently available climate science, and it defers to the Final Report analysis of future system operations under potential climate and sea level	Although, as the commenter notes, the climate change analysis in the EIR/EIS is now a few years old, the information at issue was the best available information at the time the analysis was composed, and it remains reasonably current and therefore remains sufficient for CEQA and NEPA purposes. Notably, it is common for the environmental review process for complex major projects to consume several years, with the inevitable consequence that some of the information prepared during the early stages of environmental review becomes less current than it was initially by the time a final environmental document is issued and becomes ready for agency approval. For practical reasons, the mere fact that some information remains less current than it was originally does not trigger the need for additional rounds of environmental review. If either the passage of time or the existence of new information always triggered additional rounds of environmental review, then the environmental review process, as a whole, could be unending. Here, while the commenter is correct that there is now new information on climate change and that new models are now available, the Intergovernmental Panel on Climate Change (IPCC) advises that the previous generation of models remain valid and should not be discarded wholesale. Furthermore, use of the newer suite of models would likely provide only slightly different projections of the future. In fact, for Northern California, the newer projections actually look wetter, so it is likely that the newer models would not suggest greater impacts.

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		conditions. In fact, the Current Draft generally neglects recent literature, suggesting a loose interpretation of "best available science."	
2546	82	[ATT1:] Climate change and sea level rise are now included in the No Action Alternative, as they will transpire whether or not WaterFix moves forward. A changed future thus becomes the baseline against which Alternative 4A (and the others) are compared. Changes in outflow from the Delta due to seasonal effects of climate change and the need to meet fall X2 requirements are considered in Section 4.3.1. The difference in outcomes then depends on assumptions about the facility and operations of Alternative 4A and the other Alternatives. Sensitivity analyses indicate that the impacts of the different Alternatives are generally similar in comparison to the No Action Alternative under the range of climate projections considered. [Footnote 6: http://deltacouncil.ca.gov/docs/response-letter-dwr] Thus, "Delta exports would either remain similar or increase in wetter years and remain similar or decrease in the drier years under Alternative 4A as compared to the conditions without the project." (p. 4.3.1-4). Such an inconclusive conclusion reinforces the need to be able to adapt to different outcomes. Simply because the Alternatives are expected to relate similarly to a No Action Alternative that includes climate change does not mean that the Alternatives will be unaffected by climate change.	As described in Appendix 5A, Section A, conditions under the action alternatives will be affected by climate change and sea level rise as compared to Existing Conditions. The incremental difference between conditions under the No Action Alternative and Existing Conditions provides an understanding of the changes that would occur with or without the project due to climate change, sea level rise, and projected population growth. The incremental difference between conditions under the proposed project and other action alternatives and the No Action Alternative provides an understanding of the changes that would occur due to implementation of the project. Effects due to climate change are not caused by the project, are provided for informational purposes only, and do not lead to mitigation. The anticipated hydrologic changes due to climate change (increased temperatures and more years of critical dryness, increased water temperatures, changes in precipitation and runoff patterns, sea level rise, and tidal variations) will constrain and challenge future water management practices across the State, with or without the proposed project. The State is addressing climate change through strategies and a decision-making framework as outlined in the California Climate Adaptation Strategy and Adaptation Planning Guide. However, no single project and indeed none of the project alternatives would be able to completely address all of the impacts of climate change. The State of California has acknowledged that sea level rise threatens coastal and near coastal resources (such as the Delta and Delta water supplies) and that adaptation and resiliency planning to protect these resources from expected levels of sea level rise is appropriate.
2546	83	[ATT1:] Interactions among species, landscapes, and the proposed actions: The Previous Draft acknowledged the complexities produced by webs of interactions, but it focused on individual species, particular places, or specific actions that were considered in isolation from other species, places, or actions. Potential predator-prey interactions and competition among covered and non-covered fish species were not fully recognized. Confounding interactions that may enhance or undermine the effectiveness of proposed actions were overlooked. In our [Delta Independent Science Board's] 2014 review we recommended describing and evaluating the potential consequences of such interactions, particularly in Chapters 11 (Fish and aquatic resources) and 12 (Terrestrial resources). The Current Draft recognizes that mitigation measures for one species or community type may have negative impacts on other species or communities, and mitigation plans may be adjusted accordingly. But the trade-offs do not seem to be analyzed or synthesized. This emphasizes the need for a broader landscape or ecosystem approach that comprehensively integrates these conflicting effects.	See response to comment 2546- 69, regarding a landscape approach.
2546	84	[ATT1:] Effects on San Francisco Bay, levees, and south-of-Delta environments: In 2014 we [Delta Independent Science Board] pointed to three kinds of impacts that the Previous Draft overlooked: (1) effects on San Pablo Bay and San Francisco Bay in relation to Delta tides, salinity, and migratory fish; (2) effects of levee failures on the proposed BDCP actions and effects of isolated conveyance on incentives for levee investments; and (3) effects of increased water reliability on crops planted, fertilizers and pesticides used, and	Regarding point 2 see response to comment 2546-73, regarding levees. Regarding point 3 see response to comment 2546-66, regarding south of Delta water use.

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		the quality of agricultural runoff. The Current Draft responds in part to point 1 (in 11.3.2.7) while neglecting point 2 and point 3. On point 3: Although the Current Draft considers how the project might affect groundwater levels south of the Delta (7.14 to 7.18), it continues to neglect the environmental effects of water use south of (or within) the Delta. Section 4.3 .26.4 describes how increased water-supply reliability could lead to increased agricultural production, especially during dry years. Elsewhere, a benefit-cost analysis performed by ICF and the Battle Group [Footnote 26: Hecht, J., and Sunding, D., Draft Bay Delta Conservation Plan statewide economic impact report, August 2013.] calculated the economic benefits of increased water deliveries to agriculture in the Delta. The Current Draft does not fully consider the consequences of these assumptions, or of the projections that the project may enhance water-supply reliability but may or may not increase water deliveries to agriculture (depending on a host of factors). We have been told that to consider such possibilities would be "too speculative" and that such speculations are explicitly discouraged in an EIR/EIS. Yet such consequences bear directly on the feasibility and effectiveness of the project, and sufficient information is available to bracket a range of potential effects. Our previous concerns are undiminished. The impacts of water deliveries south of the Delta extend to the question of how each intake capacity (3,000, 9,000, or 15,000 cfs [cubic feet per second]) may affect population growth in Southern California. Section 4.4.1-9 treats the growth-enabling effects of alternative 2D lightly, saying that additional EIS review would be needed for future developments.	
2546	85	[ATT1:] Implementing adaptive management: In the Previous Draft, details about adaptive management were to be left to a future management team. In our 2014 review we [Delta Independent Science Board] asked about situations where adaptive management may be inappropriate or impossible to use, contingency plans in case things do not work as planned, and specific thresholds for action. Although most ecological restoration actions have been shifted to California EcoRestore, we retain these and other concerns about adaptive management under California WaterFix. If the mitigation measures for terrestrial resources are implemented as described, for example, they should compensate for habitat losses and disturbance effects of the project. The test will be whether the measures will be undertaken as planned, be as effective as hoped, and continue long enough to fully mitigate effects. This is where adaptive management and having contingency plans in place becomes critically important. It is not apparent that the mitigation plans include these components.	See response to comment 2546- 7, regarding adaptive management.
2546	86	[ATT1:] Reducing and managing risk: Our [Delta Independent Science Board's] 2014 review advised using risk assessment and decision theory in evaluating the proposed BDCP actions and in preparing contingency plans. We noticed little improvement on this issue, just a mention that it might be considered later. This is not how the process should be used.	Risk assessment and decision theory approaches were not employed in the EIR/EIS analyses because these approaches are not useful in assessing the potential environmental effects of the action alternatives for the purposes of CEQA and NEPA compliance. These approaches may be used in the Adaptive Management and Monitoring Process to assess the potential for risk issues to arise during project implementation or for determining how to make project changes during project operations.

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			See response to comment 2546-7, regarding adaptive management.
2546	87	[ATT1:] Comparing BDCP alternatives: The Previous Draft contained few examples of concise text and supporting graphics that compare alternatives and evaluate critical underlying assumptions. Rudimentary comparisons of alternatives were almost entirely absent. The Current Draft retains this fundamental inadequacy. Our [Delta Independent Science Board's] 2014 review urged development and integration of graphics that offer informative summaries at a glance. We offered [an] example [ATT1:ATT1]. If the Current Draft contains such graphics, they would need to be ferreted out from long lists of individual pdf files. Because they are not integrated into the text where they are referenced in the Current Draft, the figures cannot readily illustrate key points.	This Final EIR/EIS includes comparison of alternatives in text and graphic form in the Executive Summary and individual resource chapters. Keeping figures separate from the text of the chapters ensures that the file size of the chapter and the file size of the figures pdf are manageable and can be downloaded from the website DVD at a reasonable speed using standard home internet service.
2546	88	[ATT1: ATT1: Delta Independent Science Board recommended graphic offering informative summaries.]	The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS.
2546	89	[ATT1:] Alternatives 4A, 20, and 5A (Section 4): It is good that the proposed alternatives are seen as flexible proposals, as it is difficult to imagine that any proposal for such a complex and evolving system could be implemented precisely as proposed. Some initial and ongoing modifications seem desirable, and unavoidable. The operating guidance for the new alternatives seems isolated from the many other water management and environmental activities in and upstream of the Delta likely to be important for managing environmental and water supply resources related to Delta diversions. While it is difficult to specify detailed operations for such a complex system, more details on the governance of operations (such as the Real Time Operations process) would be useful. The operational details offered seem to have unrealistic and inflexible specificity. Presentations of delivery-reliability for different alternatives remain absent. Environmental regulations on Delta diversions have tended to change significantly and abruptly in recent decades, and seem likely to change in the future. How sensitive are project water supply and environmental performance to changes in operating criteria? The collaborative science ideas seem philosophically attractive, but are not given much substance. Monitoring is mentioned, but details of organization, intent, and resources seem lacking. Adequate funding to support monitoring, collaborative science, and adaptive management is a chronic problem. Section ES.4.2 states that "Proponents of the collaborative science and monitoring program will agree to provide or seek additional funding when existing resources are insufficient." This suggests that these activities are lower in priority than they should be.	Please see Section 3.6.4.3 in Chapter 3, Final EIR/EIS, for information on real-time operations (RTO) under the proposed project. While the specific RTO parameters presented in Chapter 3 were used primarily for modeling purposes, actual operations will be based on real-time monitoring of hydrologic conditions and fish presence/movement. Delivery and export estimates under the project alternatives can be found in Chapter 5 and associated appendices. It's important to note that the hydrological modeling did not assume future changes from the existing regulatory environment due to the speculative nature of doing so. See Appendix 5A for details on how the modeling assumptions and results may differ from actual real-time operations under the project proposed. Commitments to adaptive management and collaborative science will be secured through a MOA between DWR, Reclamation, the public water agencies, CDFW, NMFS, and USFWS. Details of the collaborative science and adaptive management process, including adaptive management decision-making, an organizational structure for adaptive management decisions, and funding for collaborative science will be developed and incorporated through the MOA, as needed. See response to comment 2546- 7, regarding adaptive management. For information on operational criteria, please see Master Response 28.
2546	90	[ATT1:] The three new alternatives, 4A, 2D, and 5A, seem to have modest changes over some previous alternatives, with the exception of not being accompanied by a more	For a direct comparison of the three new alternatives and the BDCP alternatives see; Table 3-1. Action Alternatives Evaluated in the Draft EIR/EIS, Table 3-5. Water Conveyance Facilities Components of Each Alternative and Table 3-6. Comparison of Operational Rules under Operational Scenarios and Alternatives, of

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		comprehensive environmental program. In terms of diversion capacities, they cover a wide range, 3,000 cfs [cubic feet per second] (5A), 9,000 cfs (4A), and 15,000 cfs (2D). The tables comparing descriptions of the new alternatives to previous Alternative 4 are useful, but should be supplemented by a direct comparison of the three new alternatives.	this Final EIR/EIS.
2546	91	[ATT1:] The new Sustainable Groundwater Management Act (SGMA) seems likely to increase demands for water diversions from the Delta to the south to partially compensate for the roughly l.5-2 maf/year [million acre-feet per year] that is currently supplied by groundwater overdraft.	This Final EIR/EIS includes specific groundwater model results for Alternatives 2D, 4A (proposed project), and 5A. Recent adoption of the Sustainable Groundwater Management Act will implement groundwater monitoring programs and require implementation of groundwater sustainability plans throughout California by 2022, and full implementation of the plans by 2042. The requirements for the groundwater sustainability plans and local and regional plans are currently under development. It is anticipated that the plans would reduce the ability to continue long-term groundwater withdrawals that would result in continuous overdraft conditions. The current CALSIM II and economic models used in the EIR/EIS assume that the maximum amount of SWP and CVP water and water from water rights holders are utilized prior to use of groundwater. If surface water and/or groundwater are not available, the EIR/EIS analysis assumes idling of agricultural lands. As described in Chapter 3, Description of Alternatives, the alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers and in accordance with State and federal laws and regulations, including completion of CEQA and/or NEPA environmental documentation if SWP or CVP facilities are used for the transfer. Implementation of the groundwater sustainability plans are considered in the cumulative impact analysis.
2546	92	[ATT1:] The State seems [to have] embarked on a long-term reduction in urban water use, particularly outdoor irrigation. Such a reduction in urban water use is likely to have some modest effects on many of the water-demand and scarcity impacts discussed.	The proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management). These actions are being considered to meet future water demands for planned municipal uses consistent with water demand projections in the recent Urban Water Management Plans submitted to DWR which include approaches to meet the 20 percent reduction per capita urban water use by 2020.
2546	93	[ATT1:] The climate change analysis of changes in Delta inflows and outflows is useful, but isolating the graphs in a separate document disembodies the discussion. The fragmentation of the document by removing each Section 4 figure into a separate file is inconvenient for all, and makes integrated reading practically impossible for many.	Keeping figures separate from the text of the chapters ensures that the file size of the chapter and the file size of the figures pdf are manageable and can be downloaded from the website at a reasonable speed using standard home internet service. Master Response 38 for information on the length and complexity of the document.
2546	94	[ATT1:] The details of the alternative analyses seem mostly relevant and potentially useful. Much can be learned about the system and the general magnitude of likely future outcomes from patient and prolonged reading of this text. An important idea that emerges from a reading of the No Action Alternative is that the Delta, and California water management, is likely to change in many ways with or without the proposed project. The No Action and other alternatives also illustrate the significant interconnectedness of California's water system. The range of impacts considered is impressive, but poorly organized and summarized.	Please refer to Master Response 4 for additional details on the selection of alternatives and Master Response 38 for information on the length and complexity of the document.
2546	95	[ATT1:] The discussion of disinfection by-product precursor effects in Delta waters is improved significantly, but could be made more quantitative in terms of economic and public health	This comment is a summary of the California WaterFix (Alternative 4A). No substantive comments on the EIR/EIS contents for environmental review process are presented and no additional response is necessary.

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		impacts.	
2546	96	[ATT1:] The discussion on electromagnetic fields is suitably brief, while the tsunami discussion could be condensed.	This comment is a summary of the California WaterFix (Alternative 4A). No substantive comments on the EIR/EIS contents for environmental review process are presented and no additional response is necessary.
2546	97	[ATT1:] The effects of the likely listing of additional native fish species as threatened or endangered seems likely to have major effects on project and alternative performance. These seem prudent to discuss, and perhaps analyze.	Any future listing of any species is speculative. Non-listed species such as splittail, striped bass, and lamprey are evaluated in this Final EIR/EIS. Any future changes to operations or other activities required should any new species be listed would need to be evaluated as part of the actions associated with that listing.
2546	98	[ATT1:] Is Alternative 2D, with 15,000 cfs [cubic feet per second] capacity, a serious alternative? Does it deserve any space at all?	The alternatives included in this Final EIR/EIS represent a reasonable range of alternatives that meet the requirements of both CEQA and NEPA. The alternatives analyzed include a combination of water conveyance configurations, capacities, and operational criteria; conservation measures that include habitat restoration and conservation targets and stressor reduction measures; and various avoidance and minimization measures. The Final EIR/EIS analyzes in detail a total of 18 action alternatives in addition to the No Action Alternative. The broad range of alternatives included in this Final EIR/EIS, with varying degrees of impacts, also reflects the type of "bookend" analysis. For example, under the "bookend" approach utilized by the Lead Agencies for the operational alternatives, the EIR/EIS evaluated alternatives that ranged from higher export deliveries at one end, and reduced exports and higher outflows to protect fish species at the lower end. (See Final EIR/EIS Appendix 3A, Section 3A.9 and Chapter 3, Section 3.2.1.4.) By analyzing various alternatives covering the entire spectrum of impacts, the alternatives included in the Draft EIR/EIS represent an appropriate range of alternatives and will permit the Lead Agencies to make a reasoned choice among alternatives. Thus, the range of alternatives included in this Final EIR/EIS fully complies with CEQA and NEPA. Please refer to Master Response 4 (Alternatives) for additional information on how the project alternatives were developed.
2546	99	[ATT1:] Table 4.1-8 implies tidal brackish/Schoenoplectus marsh. Should some of this be considered tidal freshwater marsh?	This comment is in regard to Resource Restoration and Protection Principle CBR1. As stated in CBR1, the 22 acres will be "Schoenoplectus and Typha-dominated tidal and nontidal freshwater emergent wetland in patches greater than 0.55 acres in the central Delta".
2546	100	[ATT1:] The dynamics of the Delta are largely determined by water flows. The Current Draft acknowledges that water flows and salinity will change in complex ways. There are statements about how inflows, outflows, and exports will change in Alternative 4A in relation to baseline (No Action) conditions (p. 4.3.8-13). What is the scientific basis on which these changes will be managed? Will models be used? What confidence should we have in current projections? Have the effects of droughts or deluges been considered?	The EIR/EIS presents CALSIM II and DSM2 model results for the Existing Conditions, No Action Alternative, proposed project (Alternative 4A), and all other action alternatives. These models runs are to be used during the completion of planning studies in a comparative manner to determine the projected changes as compared to the Existing Conditions and No Action Alternative. The models are run in a manner to deliver water rights to all senior water rights holders, environmentally-required flows (e.g., flows under the USFWS and NMFS biological opinions), and water quality criteria (e.g., SWRCB Decision 1640 which address salinity objectives). The EIR/EIS CALSIM II model evaluates projected conditions with assumptions for 82-years of hydrologic conditions with assumptions for future climate change and sea level rise conditions and projected population growth that would occur upstream of the Delta with or without the project. The 82-year period includes extremely wet and extremely dry hydrologic periods (including the 1976-1977 and 1987-1992 droughts, as described in Appendix 5A, Modeling Technical Appendix). These models are strictly used to compare alternatives and provide information for DWR and Reclamation to select a proposed project to be published in the Notice of Determination and Record of Decision. Real-time operations will occur within the boundaries of federal and state regulatory requirements, including future water rights permits and biological opinion criteria. For more information on real time operations see Section, 3.6.4.3, of this Final EIR/EIS.

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2546	101	[ATT1:] 4.3.7-10, line 13: Text on disturbing sediments and releasing contaminants needs to add nitrogen and phosphorus to the concerns.	The analysis focuses on the potential toxic effects from contaminants. It is acknowledged that nitrogen- and phosphorus-based substances could be released during sediment disturbance; however, there would not be anticipated to be any localized effects from these substances and any such effects from all of the proposed construction would be minor in terms of contribution to the overall N and P budgets within the system.
2546	102	[ATT1:] Water quality (Chapter 8): 8-3, line 13: Microcystis is singled out as a cyanobacterium that can (but doesn't always) produce the toxin myrocystin; however, there are other cyanobacteria that sometimes produce other toxins. Different genera can differ in the nutrient that limits their blooms (see 2014 letter by Hans Paerl in Science 346(6406): 175-176). For example, Microcystis blooms can be triggered by N [nitrogen] additions because this species lacks heterocysts, while toxin-producing Anabaena blooms can be triggered by P [phosphorus] additions, because Anabaena has heterocysts and can fix N. The frequently repeated discussion of cyanobacteria blooms needs to be updated. Also cite Paerl on page 8-45 line 8. Ditto on page 8-103 and 8-106 line 34. 8-8. We [Delta Independent Science Board] recommended that carbon be separated into its dissolved and particulate forms for consideration of water quality impacts because dissolved organic carbon (DOC) is the form most likely to react with chloride and bromide and result in formation of disinfection by-products. The section on bromide focuses on interactions with total organic carbon (TOC), rather than DOC. Carbon is primarily considered with respect to formation of disinfection by-products but carbon plays a central role in the dynamics of the Delta, affecting processes such as metabolism, acidity, nutrient uptake, and bioavailability of toxic compounds. Carbon cycling determines ecosystem structure and function in aquatic systems. It also modifies the influence and consequences of other chemicals and processes in aquatic systems. Dissolved organic carbon (DOC), for example, influences light and temperature regimes by absorbing solar radiation, affects transport and bioavailability of metals, and controls pH in some freshwater systems. Respiration of organic carbon influences dissolved oxygen concentrations and pH. 8-18, line 12 says that salt disposal sites were to be added in 2014; were they? 8-19 and 8-20: "CECs" [contaminants of emerging concern] is not defined and seems to be used incorrectly. Change "CECs" to "EDCs" [endocrine disrupting chemicals] on page 8-19 and to "PPCPs" [pharmaceutical and personal care products] on page 8-20. 8-21, line 18-19: Such a statement should be qualified. The conclusion that marine waters are N-limited and inland waters are P-limited is outdated. Recent papers, including the above, find more complex patterns. 8-22, lines 18 and 30: Choose either "cyanobacteria" or "blue-green algae;" using both will confuse readers who may perceive them as different. 8-23, lines 15-16: Say how the N:P ratio changed composition, not just that it did change composition. 8-23 through 8-25: Uncertainties (e.g., standard deviation or standard error of the mean) associated with the mean concentrations of DOC should be presented. It is impossible to	Regarding text on page 8-3, cyanobacteria are the most common harmful algae in freshwaters and Microcystis is the most common genera to bloom in freshwaters, including the Delta (Lehman et al. 2013). The toxin most often associated with Microcysitis is microcystin. Although it is possible that other cyanobacteria species, such as Anabaena may form, Microcystis serves as an appropriate surrogate for all cyanobacteria. This is because cyanobacteria generally utilize similar conditions (i.e. high nutrients, low residence time, water temperatures greater than 19°C). The text on page 8-8 of Chapter 8, Water Quality, presented in Appendix A of the RDEIR/SDEIS, and carried forward into Chapter 8 of this Final EIR/EIS in Section 8.1.3.3, Bromide, is focused on the existing conditions of bromide to the study area. The discussion of total organic carbon with bromide is due to the inclusion of a direct quote from the Final Draft of the CALFED Water Quality Program Stage 1 Final Assessment included to provide more information on the basis of the 50 µg/L bromide goal. Organic carbon's importance in the foodweb, as well as a disinfection byproduct precursor, in acknowledged within Section 8.1.3.11, Organic Carbon. Because the general concern with increasing organic carbon levels in the Delta is adverse effects to drinking water uses, this section of the document is focused on that aspect of organic carbon. Regarding 8-18 A final "Phase 2" - Development of Potential Salt Management Strategies report identifying salt disposal alternatives was released in October 2014. The text was changed to acknowledge the final report. Regarding the use of the term "CECs," the term has been changed per the comment to "EDCs" on page 8-19 and "PPCPs" on page 8-20. Regarding use of the term "cyanobacteria" vs. "blue-green algae," the term "blue-green algae" has been changed to "cyanobacteria" per the comment. Regarding how the N:P ratio changed composition, the text has been updated as follows. "In addition, changes in ratios of nutrients may affect aquatic life by causing changes in the proportions of algal species, macrophytes and higher species (Glibert et al. 2011). While the impact of nutrient ratios on the proportions of algal species, macrophytes and higher species is unsettled within the scientific community, some analyses demonstrate that the ratio of one nutrient to another, nutrient stoichiometry, may influence primary productivity and community composition. Glibert et al. (2011) analyzed over 30 years of Delta water quality data and conclude that numerous aquatic organism population shifts [insert](i.e., increases in flagellates, cyanobacteria, piscivorous fish, and invasive vegetation and bivalves; and declines in the zooplankton Eurytemora sp., delta smelt, and diatoms) were correlated with changes in the quality and quantity of nutrients." Regarding the concentrations discussed for organic carbon, they are to provide an overview of the ranges and average conditions in the affected environment across the different stations. The addition of standard deviation would not contribute to the impact assessment presented later in Chapter 8, Water Quality, Impacts WQ-17 and WQ-18 for organic carbon, thus, no change was made in response to this portion of the comment. Regarding dissolved oxygen, from review of the specific page and line cited by this comment, as well as the section under this heading, it could not be determined to what the comment is referring. The discussion of

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		interpret differences between the values that are presented without knowledge of the variation around the mean values (e.g., without knowledge of variation around the mean, it is difficult to evaluate whether DOC concentrations at south vs. north-of-Delta stations and Banks headworks differ from one another; 3.9 to 4.2 mg/L vs. 4.3 mg/L). 8-65, line 12: Specify if DO [dissolved oxygen] is for daytime or night, and for surface, bottom or mid-water column. 8-75, line 6: The failure to consider dissolved P (DP) should be addressed; there is much greater uncertainty. The adherence of some P to sediment does not prevent considerable discharge of P as DP. Also on page 8-95 line 40, qualify predictions due to lack of consideration of DP. 8-82, line 4-5: It seems unlikely that current levels of Microcystis growth in the Delta are dependent on the exclusive uptake of ammonia. Temperature is one of the primary factors driving Microcystis blooms and global warming could promote bloom occurrence. Consider revising this section to, "Because it seems unlikely that current levels of Microcystis growth in the Delta are dependent on the exclusive uptake of ammonia, the frequency, magnitude and geographic extent of Microcystis under future scenarios is difficult to predict." 8-105, line 8: Would total nitrogen be dominated by nitrate just by increasing ammonia removal? Depending on redox and microbiota, why wouldn't nitrate be converted to ammonium? A lot of attention is given to factors controlling Microcystis blooms in this chapter but little attention is given to its toxicity. Just as factors controlling blooms are not fully understood, the regulating factors of cellular toxin contents remain poorly understood. As a result, the impact of blooms on the environment can vary (e.g., large blooms of non-toxic or low toxin organisms may have impacts on environmental variables such as nutrient uptake and dissolved oxygen consumption while small blooms of highly toxic organisms could impact food webs) [see: Ma et al. (2015) Toxic and non-toxic strains of Microcystis aeruginosa induce temperature dependent allelopathy toward growth and photosynthesis of Chlorella vulgaris. Harmful Algae 48: 21-29].	the factors that affect dissolved oxygen levels in surface waters in the first paragraph of this section address both daytime (photosynthesis) and night time (respiration) conditions. In general, the assessment of dissolved oxygen in Chapter 8, Water Quality, Impacts WQ-9 and WQ-10 considered overall effects to the water column. Regarding phosphorus impacts, as described in Phosphorus within Section 8.3.1.7, Constituent-Specific Considerations, of Chapter 8, Water Quality, there is limited ability to predict changes in phosphorus concentrations, including release of sediment-bound P, and thus uncertainty. Therefore, the assessment of phosphorus changes was conducted qualitatively. Because there are no sediment transport models for the Delta, conservative mixing was assumed to predict changes in dissolved phosphate concentrations based on the mixing of different water sources. As described in both Section 4, New Alternatives: Alternatives 4A, 2D and 5A and Chapter 8, Water Quality, 8.3.3.9 of the RDEIR/SDEIS, phosphorus loading to waters upstream of the Delta and release of suspended sediment-bound phosphorus is not anticipated to change due to project operations. Further, phosphorus concentrations are not expected to change substantially due to restoration activities in Alternatives 4A, 2D and 5A. Negligible to low increases in phosphorus (i.e. <0.2 mg/L) may occur from January through March at locations in the Delta where the source fraction of San Joaquin River water would increase. Because dissolved phosphorus is a component of total phosphorus, and total phosphorus concentrations would at most increase minimally, it was not necessary to conduct a separate assessment on dissolved phosphorus. Regarding 8-82, line 4-5, the discussion as written for Microcystis in Section 8.3.1.7, Constituent-specific Considerations Used in the Assessment, of Chapter 8, Water Quality acknowledges that changing ammonia levels may not have an effect on Microcystis bloom formation potential. No change is necessary. Regarding the change in ammonia and nitrate in Delta outflow to San Francisco Bay, the assumed presence of nitrate, and not ammonia, under the project alternatives, is due to a separate action (i.e., the SRWTP upgrade is not part of any alternative). For simplification and to understand the maximum potential effects on ammonia and nitrate of the change in Delta outflow to the Bay, conservative transport is assumed. However, there are ongoing nitrogen cycling and uptake that will ultimately affect the amount of ammonia and nitrate that reach the Bay that may result in lower nitrate concentrations relative to those discussed. Regarding toxicity of microcystin, the reason for the inclusion of an assessment of Microcystis in the EIR/EIS is because of its potential to adversely affect beneficial uses. A specific discussion of the degree to which it may be toxic is not needed to make determinations whether the project alternatives would contribute to increased levels of microcystin. Rather, the focus is on whether the alternative would cause a significant increase in their presence, which may contribute to adverse effects, including toxicity. Please also see Master Response 14 regarding water quality.
2546	103	[ATT1:] Fish and aquatic resources (Chapter 11): We [Delta Independent Science Board] found individual conclusions or new analyses difficult to identify in this key chapter because changes to it were not tracked in the public version of the Current Draft and there was no table of contents that could have assisted in side-by-side comparison with the Previous Draft. Effects of temperature: We noticed more emphasis on temperature concerning the fish "downstream" impacts (but	A summary of the substantive changes to this Chapter were outlined in Section 2, Substantive Draft EIR/EIS Revisions, of the RDEIR/SDEIS. Changes to Chapter 11 were shown in Appendix A in redline format, and starting on page 11-114 of Appendix A in the RDEIR/SDEIS, a note to the reviewer indicates that the following analysis is all new text and gives a summary of the updated impact analysis that follows. In light of public comments on the RDEIR/EIS regarding the potential effects of project operations downstream of the Plan Area, the RDEIR/SDEIS and this Final EIR/EIS include additional analyses and discussion on potential changes in flow, temperature, DO, sediment inputs, and biological effects on downstream bays due to project implementation. However, additional temperature modeling was not conducted downstream of the Plan Area because water temperature in the bays is driven by air temperature

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		without tracked changes this becomes difficult to document). The main temperature variable used expresses the percentage of time when monthly mean temperatures exceed a certain rate or fall within a certain boundary. The biological impact, however, is difficult to assess with these numbers. If all of the change occurred just during operations or just during one day, the biological impact could be much different than a small change every day (provided by using means). Graphs of changes and listing of extreme highs and lows during a model run would have more biological meaning. Also, comparisons were made using current baseline conditions and did not consider climate change effects on temperatures.	and influenced little, if any, by water project operations. Refer to Chapter 11 in this Final EIR/EIS for additional discussion on water temperatures in downstream bays under the project alternatives. As it relates to climate change, all NEPA effects analyses compare to the No Action Alternative, which includes the same climate change assumptions, among others, as the project alternatives. The Existing Conditions scenario, however, does not include effects of climate change and therefore differences between project alternatives and Existing Conditions is frequently driven by these differing assumptions.
2546	104	[ATT1:] Fish and aquatic resources (Chapter 11): We [Delta Independent Science Board] found individual conclusions or new analyses difficult to identify in this key chapter because changes to it were not tracked in the public version of the Current Draft and there was no table of contents that could have assisted in side-by-side comparison with the Previous Draft. Fish screens: It is unclear how (and how well) the fish screens would work. The description of fish screens indicates that fish >20 mm are excluded, but what about fish and larvae that are <20 mm, as well as eggs? Table 11-21 seems out of date, because some fish screens appear to have been installed, but data on their effects are not given. Despite the lack of specific data on how well screens function, the conclusion that there will be no significant impact is stated as certain (e.g., page 1-100 line 38). Here, as in many other places, measures are assumed to function as planned, with no evidence to support the assumptions. The level of certainty seems optimistic, and it is unclear whether there are any contingency plans in case things don't work out as planned. This problem persists from the Previous Draft.	Regarding the first paragraph of the comment, please see response to comment 2546-103. The potential for entrainment of smaller life stages was discussed in more detail in this Final EIR/EIS (see, for example Impact AQUA-3, for Alternative 4A), and the analysis cross-referenced the more detailed analysis presented in the 2013 Public Draft BDCP Appendix 5.B.This Final EIR/EIS analyzes risk of Delta smelt entrainment at the NDD for life stages < 22-mm using the DSM2-PTM. This method estimates entrainment by various water diversions of larval delta and longfin smelt that originate from various spawning locations using one-dimensional modeling of Delta hydrodynamics. The NDD entrainment discussion (Impact AQUA-3) for the preferred alternative, 4A is based on the analysis completed for Alternative 1A. Note that effects under 4A would likely be less than 1A due to two less intakes under 4A. Potential effects at the NDD would be limited because Delta smelt are not frequently found in the vicinity of the intakes and screens would be deigned to exclude individuals of around 22-mm and larger. It's assumed there will be no risk of entrainment to Delta smelt eggs at the NDD due to their demersal and adhesive (to river substrate) nature. Table 11-21, of this Final EIR/EIS presents general information plans, policies, and programs included in the No Action Alternative rather than specific results of studies; monitoring data for the most relevant of the locations to the NDD (Freeport intake) were included in the 2013 Public Draft BDCP. The Biological Assessment for listed fishes for Alternative 4A/California WaterFix includes further analysis on potential entrainment and impingement effects at the NDD. However, this information does not change the conclusions included in this Final EIR/EIS. Regarding uncertainty in fish screen effectiveness and design specifications, this would be addressed as part of the Collaborative Science and Adaptive Management Program, as described in Chapter 3 Description of Alternatives, Section 3.6.4.4, of this Final EIR/EIS. As discussed in Section 3.6.4.4 of this Final EIR/EIS, collaborative science and adaptive management will, as appropriate, develop and use new information and insight gained during the course of project construction and operation to fulfill several primary objectives, one of which is the design of fish facilities including the intake fish screens. This will require active study to maximize water supply, ensure flexibility in their design and operation, and minimize effects to fish species. Fish screen design and operations will be developed using the best available science at the time, including input from applicable resource agencies (e.g. NMFS, USFWS, CDFW) and subject matter experts. If the screens are not meeting expectations, additional measures may be implemented to improve screen performance. These measures could include modifications to the screens or other structural components at the intakes, or changes in water diversion operations to reduce entrainment or impingement rates. See response to comment 2546- 7, regarding adaptive management.
2546	105	[ATT1:]	Regarding the first paragraph of the comment, please see response comment 2546-103.

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		Fish and aquatic resources (Chapter 11): We [Delta Independent Science Board] found individual conclusions or new analyses difficult to identify in this key chapter because changes to it were not tracked in the public version of the Current Draft and there was no table of contents that could have assisted in side-by-side comparison with the Previous Draft. Invasive plants: Cleaning equipment is mentioned, but it is not specifically stated that large machinery must be cleaned before entering the Delta. Section 4.3.8-358 says equipment would be cleaned if being moved within the Delta. Cleaning is essential to reduce transfer of invasive species; a mitigating measure is to wash equipment, but it must also be enforced. Weed control (fire, grazing) is suggested, but over what time frame? It may be needed in perpetuity. That has been our experience at what is considered the world's oldest restored prairie (the 80-yr-old Curtis Prairie, in Madison, WI). Weed invasions can occur after construction is completed; how long will the project be responsible for weed control? 3-5 years won't suffice. 4.3.8-347. Herbicides are prescribed to keep shorebird nesting habitat free of vegetation, but toxic effects of herbicides on amphibians, etc. are not considered. 4.3.8-354. Impacts of invasive plants seem underestimated. Impact analysis implies that the project disturbance area is the only concern, when dispersal into all areas will also be exacerbated. At the Arboretum, a 1200-acre area dedicated to restoration of pre-settlement vegetation, invasive plants are the main constraint. A judgment of no significant impact over just the disturbance area is overly optimistic. 4.3.8-356. Does not mention need to clean equipment to minimize import of seeds on construction equipment.	Regarding the comment on cleaning equipment, on Page 4.3.8-356 lines 11-13, of the Draft RDEIR/SDEIS, it states “construction vehicles and construction machinery would be cleaned prior to entering construction sites”. Weed management on reserve lands will be addressed in individual management plans that will be developed for each site. DWR will be responsible for managing weeds on water conveyance facility lands. Regarding the comment on herbicides mentioned on Page 4.3.8-347, of the Draft RDEIR/SDEIS, this section is not specifically prescribing herbicides to keep shorebird nesting habitat free of vegetation it actually says: “Manage levee habitats to have minimal vegetation but do not spray herbicide directly or drive on levees during the nesting season (April–July, Iglecia et al. 2012)”, which state the primary goal is to have minimal vegetation but puts a condition on the use of herbicides. Also, on page 4.3.8.-346, of the Draft RDEIR/SDEIS, it states that this, and 17 other management activities listed, “would be considered for implementation under Environmental Commitment 11 in areas where they would not conflict with other species management.” It is not a prescribed activity. All operations and maintenance activities on protected lands would be subject to further review when management plans for those lands are developed. The commenter states that the impacts of invasive plants seem underestimated and believes that dispersal into all areas will also be exacerbated. Page 4.3.8-356 lines 11-13, of the Draft RDEIR/SDEIS, states “Clearing operations and the movement of vehicles, equipment, and construction materials in the study area would facilitate the introduction and spread of invasive plants by bringing in or moving seeds and other propagules.” which acknowledges that the project activities would facilitate the introduction and spread (i.e., dispersal) of invasive plants. Impact Bio-186, Adverse Effects on Natural Communities Resulting from the Introduction and Spread of Invasive Plant Species, goes on to state “The adverse effects that would result from the introduction and spread of invasive plants through colonization of temporarily disturbed areas would be minimized by implementation of Environmental Commitment 11, AMM4, AMM10, and AMM11.” The commenter states that on page 4.3.8-356, of the Draft RDEIR/SDEIS, there is no mention of a need to clean construction equipment to prevent the import of seeds. Page 4.3.8-358, lines 40-41, of the Draft RDEIR/SDEIS, specifically states that “construction vehicles and construction machinery would be cleaned prior to entering construction sites.”
2546	106	[ATT1:] Fish and aquatic resources (Chapter 11): We [Delta Independent Science Board] found individual conclusions or new analyses difficult to identify in this key chapter because changes to it were not tracked in the public version of the Current Draft and there was no table of contents that could have assisted in side-by-side comparison with the Previous Draft. Cryptic acronym and missing unit: Figure 2: SLR [sea level rise] x year: y axis lacks units; reader has to continue to table 11-20 to find that it is centimeters.	Regarding the first paragraph of the comment, please see response to comment 2546-103. The Figure referenced is now Figure 11-5 in this Final EIR/EIS and the title of the figure states “sea level rise” and the y-axis now shows units.
2546	107	[ATT1:] Terrestrial biological resources (Chapter 12) -- Effects on wetlands and waters of the United States (WOTUS): Page 12-1, line 18-19 says: "Under Alternatives 2D, 4, 4A, and 5A, larger areas of non-wetland waters of the United States would be filled due to work in Clifton Court	The Lead Agencies agree that not all jurisdictional waters are interchangeable, for mitigation purposes. However, the analysis in this Final EIR/EIS draws a reasonable conclusion that the type of open water habitat that would be affected in Clifton Court Forebay, which is an artificial reservoir, would be the same type of habitat as that created by the Forebay expansion. The commenter’s concern that levee failure due to vibration could put wetlands at risk is addressed in

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		Forebay; however, the Forebay would ultimately expand by 45O acres and thus largely offset any losses there." Is the assumption that, acre for acre, all jurisdictional waters are interchangeable, whether of different type or existing vs. created? The literature does not support this assumption. The text argues that the wetlands would be at risk with levee deterioration, sea level rise, seismic activity, etc. But the solution is for "other programs" to increase wetlands and riparian communities. What if this project causes the problem, e.g. via vibration? CM1 alternative 4A would fill 775 acres of WOTUS (491 wetland acres); Alt 2D would fill 827 (527 wetland) + 1,931 acres temporary fill at Clifton Court Forebay; Alt 5A would fill 750 (470 wetland). That's a lot of area. The timing and details of mitigation measures are not provided. References to the larger Delta Plan suggest that compensations would come at unknown times. Piecemeal losses such as indicated here: "Only 1% of the habitat in the study area would be filled or converted" (Chapter 12, line 29, page 12-22) is how the US has lost its historical wetlands. What are the overall cumulative impacts of wetland losses in the Delta? What is the tipping point beyond which further wetland losses must be avoided? The proposed project is one part of the broader array of management actions in the Delta and should be considered in that broader context.	Impact GEO-5, Loss of Property, Personal Injury, or Death from Structural Failure Resulting from Construction-Related Ground Motions during Construction of Water Conveyance Features, Chapter 5, of this Final EIR/EIS. Construction-related ground motions and traffic effects could initiate liquefaction, which could cause failure of structures during construction. The impact could be significant. However, because DWR would conform to Cal-OSHA and other state code requirements and conform to applicable design guidelines and standards, such as USACE design measures, in addition to implementation of Mitigation Measures TRANS-2a and TRANS-2b, as well as the maintenance and reconstruction of levees through Mitigation Measure TRANS-2c, the hazard would be controlled to a level that would protect worker safety (see Appendix 3B, Environmental Commitments, AMMs, and CMs). The commenter's concern that timing and details are no provided is addressed in Mitigation Measure BIO-176, Compensatory Mitigation for Fill of Waters of the U.S., discussed in Chapter 12 of this Final EIR/EIS. Mitigation Measure Bio-176 provides mitigation to compensate for significant impacts on wetlands. The mitigation commits the Lead Agencies to compensate for impacts on wetlands and sets a performance standard of no net loss of wetland functions and values. Although specific details of the mitigation have not yet been determined, all mitigation proposed as compensatory mitigation would be subject to specific success criteria, success monitoring, long-term preservation, and long-term maintenance and monitoring pursuant to the requirements of the U.S. Army Corps of Engineers Mitigation Rule. The commenter's concern about cumulative impacts of wetlands lost is addressed in Chapter 12, under the relevant wetland Natural Communities classification (Impact BIO-24, Changes in Managed Wetland Natural Community as a Result of Implementing Alternative, etc.).
2546	108	[ATT1:] Terrestrial biological resources (Chapter 12) -- Habitat descriptions: How will mudflats be sustained for shorebirds? Exposed mud above half-tide can become vegetated rapidly. In the Delta, the bulrush Schoenoplectus californicus tolerates nearly continuous tidal submergence.	The protection and restoration of natural communities would also include management and enhancement actions under Environmental Commitment 11, Natural Communities Enhancement and Management. These activities include management activities to benefit shorebirds such as manipulating managed wetlands to provide optimum water depths for foraging shorebirds and islands for nesting, and providing islands with little or no vegetation (described under Impact BIO-181, Chapter 12, of this Final EIR/EIS).
2546	109	[ATT1:] Terrestrial biological resources (Chapter 12) -- Habitat descriptions: Are soils clayey enough for the proposed restoration of up to 34 acres of vernal pool and alkali seasonal wetland near Byron? These areas will need to pond water, not just provide depressions.	For vernal pools, the commitment for restoration under Alternative 4A through Environmental Commitment 9 would rely on the guidance for restoration presented in Conservation Measure 9, Vernal Pool and Alkali Seasonal Wetland Complex Restoration, of the Draft BDCP and discussed in 3.6.2.1, Chapter 3, of this Final EIR/EIS. Specific restoration sites would be selected on the basis of their availability, suitability for restoration, biological value, and practicability considerations. Although specific details of the mitigation have not yet been determined, all mitigation proposed as compensatory mitigation would be subject to specific success criteria, success monitoring, long-term preservation, and long-term maintenance and monitoring pursuant to the requirements of the U.S. Army Corps of Engineers Mitigation Rule.
2546	110	[ATT1:] Terrestrial biological resources (Chapter 12) -- Habitat descriptions: 12-243, line 18: How would adding lighting to electrical wires eliminate any potential impact to black rails? This mitigation is overstated.	The commenter asks how adding lighting to electrical wires would eliminate the potential for black rail mortality from powerline collisions. The RDEIR/RDEIS does not state that lighting would be added to any powerlines. The RDEIR/RDEIS does state that adding flight diverters (which make lines more visible to birds) would eliminate the already low potential for mortality of black rail from powerline collisions. For more information regarding effects on California black rail associated with electrical transmission facilities refer to Impact Bio-58, of this Final EIR/EIS.

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2546	111	[ATT1:] Terrestrial biological resources (Chapter 12) -- Habitat descriptions: Several of the species accounts (e.g., bank swallow) indicate that there is uncertainty about how construction or operations will impact the species. In most cases, monitoring is proposed to assess what is happening. But to be effective, the monitoring results need to be evaluated and fed into decision-making, as visualized in the adaptive management process. There is little explicit indication of how this will be done or funded.	The comment correctly points out that there is some uncertainty in how construction or operation of the proposed water conveyance facility and habitat restoration will affect special-status species. Most of the uncertainty is due to the unknown locations of habitat restoration. Additional uncertainty is introduced because of incomplete surveys for some species within the project area. Most of these uncertainties would be resolved during implementation when pre-construction surveys and monitoring would be conducted on the entire project site, and when restoration sites are determined and studied in detail. See response to comment 2546- 7, regarding adaptive management.
2546	112	[ATT1:] Land use (Chapter 13): Alternative 4A would allow water diversion from the northern Delta, with fish screens, multiple intakes, and diversions limited to flows that exceed certain minima, e.g., 7,000 cfs [cubic feet per second]. This would reduce flood-pulse amplitudes and, presumably, downstream flooding. How does this alter opportunities for riparian restoration? Which downstream river reaches are leveed and not planned to support riparian restoration? Where would riparian floodplains still be restorable?	For information regarding impacts to riparian habitats from ongoing operations refer to Impact Bio-11, Chapter 12, of this Final EIR/EIS. Ongoing operation, maintenance and management activities would not result in a net permanent reduction in this sensitive natural community within the study area. Therefore, there would be a less-than-significant impact on the valley/foothill riparian natural community.
2546	113	[ATT1:] Land use (Chapter 13): Over what surface area does the pipeline transition to the tunnel? At some point along the pipeline-tunnel transition, wouldn't groundwater flow be affected?	As indicated in the 2015 Conceptual Engineering Report, the proposed project (Alternative 4A) would not include any shallow pipelines. Tunnels would be used along the entire conveyance alignment from the pumping plants to the Intermediate Forebay, and from that forebay to the expanded Clifton Court Forebay. The top of the tunnels would extend from approximately 100 to 120 feet below the ground surface, and the bottom of the tunnels would extend from approximately 145 to 165 feet below the ground surface. Based upon review of available geotechnical borings obtained by DWR, the geology along the tunnel alignment is characterized by silty sands and gravels with intermittent clay lenses of 10 to 20 feet. Due to the varied conditions along the tunnel alignment at depths of 100 to 170 feet below the ground surface, it appears that the groundwater flows from the Sacramento River and adjacent sloughs would continue to flow towards operating wells near the tunnel alignment.
2546	114	[ATT1:] Land use (Chapter 13): Up to 14 years of construction activities were predicted for some areas (e.g., San Joaquin Co.); this would have cumulative impacts (e.g., dewatering would affect soil compaction, soil carbon, microbial functions, wildlife populations, and invasive species). What about impacts of noise on birds; e.g., how large an area would still be usable by greater sandhill cranes?	The analysis addressed the potential noise effects on cranes, and concluded that as much as 20,243 acres of crane habitat could potentially be affected by general construction noise (including pile driving) above baseline level (50–60 dBA; Table 12-4A-29). This would include 1,008 acres of permanent crane roosting habitat, 1,909 acres of temporary crane roosting habitat, and 17,327 acres of crane foraging habitat. The analysis was conducted based on the assumption that there would be direct line-of- sight from sandhill crane habitat areas to the construction site, and, therefore, provides a worst-case estimate of effects. In many areas the existing levees would partially or completely block the line-of-sight and would function as effective noise barriers, substantially reducing noise transmission. However, there is insufficient data to assess the effects that increased noise levels would have on sandhill crane behavior. The effects of noise and visual disturbance on greater sandhill crane would be minimized through the implementation of AMM20 Greater Sandhill Crane (see Appendix 3B, of this Final EIR/EIS). For more information on indirect effects on greater sandhill crane refer to Impact Bio-71, Chapter 12, and Section 11F.5, Appendix 11F, of this Final EIR/EIS.
2546	115	[ATT1:] Land use (Chapter 13):	For information on how jurisdictional wetlands have been mapped please refer to Section 12.3.2.4, Methods Used to Assess Wetlands and Other Waters of the United States, Chapter 12, of this Final EIR/EIS. The mitigation approach to wetlands is outlined in Mitigation Measure BIO-176, Compensatory Mitigation

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		State how jurisdictional wetlands have been mapped and how the overall project net gain or net loss of wetland area has been estimated. If mitigation consists only of restoration actions in areas that are currently jurisdictional wetlands, then there would be an overall net loss of wetland area due to the project. A mitigation ratio >1:1 would be warranted to compensate for reduced wetland area. This was also a concern for Chapter 12. Up to 277 acres of tidal wetlands are indicated as restorable; text should indicate if these are tidal freshwater or tidal brackish wetlands (or saline, as is the typical use of "tidal wetlands").	for Fill of Waters of the United States, Chapter 12, of this Final EIR/EIS. A functional assessment of wetlands proposed for fill will be conducted during the development of the Conceptual Mitigation Plan as part of the Clean Water Act permitting process. The results of this assessment will be compared to the expected functions at the proposed mitigation site(s) such that it can be confirmed that the compensatory mitigation will in fact accomplish full functional replacement of impacted wetlands. All impacted wetlands will be replaced with fully functional compensatory wetland habitat demonstrating high levels of habitat, water quality, and hydrologic/hydraulic function. Since many impacted wetlands will be significantly less than high function, the compensatory mitigation will result in a net increase in wetland function. Alternative 4A would restore up to 1,134 acres of wetlands as part of the proposed project, which would include 295 acres of tidal marsh restoration (which could include either freshwater or brackish wetlands). For more information on Environmental Commitment 4 please refer to Section 3.6.3.2, Chapter 3, and Section 11F.3.2.3, Appendix 11F, of this Final EIR/EIS. Site specific restoration has not been determined at this time; therefore, specific acreage for freshwater or brackish wetlands is not available.
2546	116	[ATT1:] Land use (Chapter 13): 13-19. On the need to store removed aquatic vegetation until it can be disposed: there are digesters for this purpose, and they might be efficient means of mitigation if management of harvested aquatic plants will be long-term. A waste product could be turned into a resource (methane fuel).	Please refer to Section 3.6.2.2, Chapter 3, of this Final EIR/EIS for more detail on CM13, Invasive Aquatic Vegetation Control. CM13 describes how operations may require facilities dedicated to the storage of removed vegetation, which, depending on their location, could potentially be incompatible with the land use designations or policies identified above. It does not say storage will necessarily take place. Please note that the preferred alternative is now Alternative 4A and no longer includes CM13. Although CM13 would not be implemented under Alternative 4A, the proposed project does include the commitment to fund the California Department of Boating and Waterways' Programs for Aquatic Weed Control, as described in Appendix 3B, 3B.3.4, of this Final EIR/EIS.
2546	117	[ATT1:] Land use (Chapter 13): 13-19, line 12: Text says that "predator hiding spots" will be removed. What are these?	Please refer to Section 3.6.3.10, Chapter 3, of this Final EIR/EIS for more detail on Environmental Commitment 15, Environmental Commitment 15, Localized Reduction of Predatory Fishes (Predator Control). Predator hiding spots, or hotspots, is areas in which predatory fish congregate. Environmental Commitment 15 would remove predator refuge habitat and reduce predator abundance in the construction areas. At a minimum, Environmental Commitment 15 will target the removal of an amount of predator refuge commensurate with the amount that may be created by construction of water conveyance facilities. These measures are expected to fully mitigate any indirect effect on predation rates associated with construction and operations.
2546	118	[ATT1:] Land use (Chapter 13): 13-19, line 20: What are the E 16 nonphysical fish barriers? An electrical barrier?	Please refer to Section 3.6.3.11, Chapter 3, of this Final EIR/EIS for more detail on Environmental Commitment 16, Nonphysical Fish Barrier. Nonphysical fish barriers may use a combination of sound, light, and bubbles similar to the BioAcoustic Fish Fences (BAFFs) tested at the head of Old River and at Georgiana Slough. In addition to these BAFF system evaluations of what may be considered true nonphysical barriers, studies are also underway to determine the effectiveness of a floating fish guidance structure. This structure uses steel panels suspended from floats to change water currents so that fish are guided towards the center of the river (away from other channel entrances), but does not substantially change the amount of water entering the channels. For the purposes of Alternatives 4A, 2D and 5A, this action would be applied only to Georgiana Slough. This commitment would mitigate for effects associated with operation of north Delta intakes and associated flows.
2546	119	[ATT1:] Land use (Chapter 13):	Please refer to Section 3.6.2.2, Chapter 3, of this Final EIR/EIS for more detail on CM20, Recreational Users Invasive Species Program. Wash stations are included under CM20 Conservation measures are described at a programmatic level, so some details are not available at this time. However, it is not anticipated that CM20

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		13-20, line 19: Boat-washing stations are mentioned; would these discharge pollutants (soap, organic debris)?	would result in discharged pollutants. Please note that the preferred alternative is now Alternative 4A and no longer includes CM20.
2547	1	ATT 1: RECIRC Letter 2492 from the City of Antioch.	Please see responses to Letter 2492.
2547	2	ATT 2: Review of BDCP model scenarios by City of Antioch, dated 2013-04-29 with 2010 water quality report.	The comment is an attachment to Letter 2492. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS that are not already addressed in comments referencing the attachment of the Final EIR/EIS. See responses to Letter 2492.
2547	3	ATT 3: Results from the BDCP Effects Analysis, BDCP Steering Committee Meeting, October 21, 2010.	The comment is an attachment to Letter 2492. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS that are not already addressed in comments referencing the attachment of the Final EIR/EIS. See responses to Letter 2492.
2547	4	ATT 4: BDCP Modeling Results, BDCP Steering Committee Meeting, June 17, 2010.	The comment is an attachment to Letter 2492. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS that are not already addressed in comments referencing the attachment of the Final EIR/EIS. See responses to Letter 2492.
2547	5	ATT 5: City of Antioch's Testimony to the State Water Resources Control Board, March 22, 2010.	The comment is an attachment to Letter 2492. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS that are not already addressed in comments referencing the attachment of the Final EIR/EIS. See responses to Letter 2492.
2548	1	Being a former marina employee, owner of boats, and forever a lover of the Delta, I must oppose the proposed twin tunnels.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. By establishing a point of water diversion in the north Delta and new operating criteria with the goal of improving water volume, timing, and salinity, the project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Refer to Master Response 3 (Purpose and Need).
2549	1	These few lines are to inform you of my absolute opposition to Governor Brown's ill-conceived Delta tunnels plans. This is nothing more than the peripheral canal "wolf" in Delta tunnel "sheeps" clothing. This should be stopped before irreparable damage is done to our precious Bay!	For more information regarding the differences between the proposed project and the peripheral canals please see Master Response 36.