RECIRC Ltr#	Cmt#	Comment	Response
		intakes downstream.	
2596	13	The RDEIR/SDEIS should be rejected. A generous review of the RDEIR/SDEIS would reject it for providing an incomplete description of the project without a financial plan to support the low water yield, and incomplete because it fails to consider a full range of viable, practical alternatives. Given the substantial record and nine years of planning, a less generous review would reject the RDEIR/SDEIS for making intentional false statements about expected water yields, the No Action scenario, and available alternatives in order to obtain environmental approvals with a severely biased analysis. The WaterFix is the most costly and controversial water project ever proposed in California's history. I do not have the legal expertise to offer an opinion on whether or not the RDEIR/SDEIS meets minimal legal standards. However, it is clear that the RDEIR/SDEIS falls well short of the unbiased and complete analysis that California and U.S. citizens deserve to support such an important policy decision. If the WaterFix was a strong project, the obvious bias in the framing of the analysis described in this letter would not be necessary. Having closely studied the development of BDCP/WaterFix for the past seven years, there is no doubt in my mind that there are not only superior alternatives, but that building the tunnels will ultimately prove to be more economically and environmentally harmful than doing nothing at all. Fortunately, there is no shortage of positive actions and investments that will be more likely to occur without the Delta tunnels, even if those likely and preferable alternatives are ignored in BDCP/WaterFix RDEIR/SDEIS.	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. Please see responses to comments 2596-2 through 2596-12 for discussion of project alternatives and adequacy of the analysis contained in the RDEIR/SDEIR.
2597	1	The environmental review for the proposed BDCP/WaterFix lacks definition and analysis of many key aspects of the project, including how the project will be operated and how it will be integrated with the statewide water supply system. The RDEIR/SDEIS indicates that some of these issues will be decided during the consultation process for the project pursuant to Section 7 of the federal Endangered Species Act. We [Contra Costa Water District (CCWD)] understand that modeling has been conducted as part of that consultation process, and we request that those model runs and any future runs that are done for the Section 7 consultation be provided to CCWD and other interested stakeholders. This will ensure that public participation and input on the BDCP/WaterFix are fully informed and meaningful.	The surface water and groundwater model runs used in the preparation of the EIR/EIS and the biological assessment were made available by DWR to all stakeholders who requested those models. Please see Master Response 5 related to Section 7 and Master Response 30 related to modeling.
2597	2	[ATT1: Figure 2-1. Analytical Framework Used to Evaluate Environmental Impacts.]	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.
2597	3	The various flaws in the RDEIR/SDEIS point to a critical need to revisit the environmental analysis, to ensure that the project's adverse impacts are thoroughly and accurately disclosed, adequately evaluated, and properly mitigated.	The EIR/EIS presents an analysis and assessment of alternatives that meets the requirements of CEQA and NEPA for impact disclosure and identification of mitigation measures to reduce environmental impacts of the proposed project and alternatives. Please see Master Response 29 related to environmental compliance.
2597	4	The lack of information about the proposed project's initial operating criteria and the range of operational adjustments and adaptive management makes it impossible to determine whether the analysis presented in the RDEIR/SDEIS captures the full range of potential project impacts. The determination of initial operating criteria for Alternative 4A, the new Preferred Alternative, is deferred until the future permitting process when the Lead Agencies will consult with the federal and state fishery agencies (NMFS, USFWS and CDFW)	The lead agencies believe that the BDCP and 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. Please see Master Response 29 related to environmental compliance.

RECIRC Ltr#	Cmt#	Comment	Response
		regarding the project's effects on listed species. RDEIR/SDEIS, Executive Summary at p. ES-21 and Section 4.1.2.2 at p. 4.1-5. As illustrated in Figure 2-1 [ATT1], consultation with the fishery agencies is a necessary step to define criteria for operation of the project. At the same time, a defined set of operating criteria is necessary for a complete and accurate project description, which in turn is necessary for a complete and accurate evaluation of the environmental effects of the project. Further, an open and public review of the operating criteria, and of how these criteria affect the analysis of environmental impacts, is a critical part of the CEQA and NEPA review process. But under DWR's schedule for project review and permitting, the operating criteria will not be determined until after the public review and comment period on the RDEIR/SDEIS has closed. According to DWR's Office of the Chief Counsel, consultation with the fishery agencies is occurring during the CEQA review; the Lead Agencies anticipate the following schedule: -Final EIR/EIS completed in May-June 2016. -USFWS and NMFS biological opinions issued in April-June 2016. -CDFW permit issued after DWR completes the CEQA process. (Bogdan, K.M., 2015) [ATT19] This schedule does not allow for adequate analysis of the project's effects, or for a meaningful public review of that analysis, once the operational criteria are determined. The operational criteria are an integral piece of the project description that is necessary for an adequate evaluation of the environmental impacts to water supply, surface water, water quality, and aquatic resources. Modifications to the assumed operational criteria will modify the resulting impacts. The Lead Agencies cannot rely on the future permitting process to fill in gaps in their own environmental analysis. The permitting agencies will require conditions and mitigation consistent with their statutory responsibilities, but these agencies will not consider the potentially significant impacts caused by these permit conditions and mitigation on environmental resources that are outside their regulatory purview. Thus, the fisheries permitting process has a much narrower focus than the Lead Agencies' obligations under NEPA and CEQA, which require a complete analysis of all of the project's impacts on the environment. As a result, the environmental analysis in the RDEIR/SDEIS must be revised to define the full range of possible operating criteria that may result from the permit process in order to bracket the full range of potential project impacts, or alternatively, this environmental analysis must be revised once the operational criteria have been determined. And in either case, the revised analysis must be recirculated for public review and comment.	Please see Master Response 5 and Master Response 28 related to operational criteria. For the Proposed Action, the USFWS and NMFS will conduct an internal ESA section 7 consultation prior to issuance of an Section 10(a) (1) (B) permit for the Proposed Action. These federal agencies will coordinate the ESA consultation process and other environmental review processes, such as the National Environmental Policy Act (NEPA), consistent with federal regulations. In addition, the USFWS and NMFS will consult with the Reclamation to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project. Please see Master Response 29 related to environmental compliance. For more information regarding adaptive management please see Master Responses 2, 5, 24, and 33.
2597	5	The RDEIR/SDEIS defers the determination of the source of water to meet proposed flow criteria for the new Preferred Alternative, Alternative 4A. As discussed in CCWD [Contra Costa Water District]'s July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS, failure to disclose the source of the water omits an important element of the project description	Please see Master Response 5 related to the BDCP/CA WaterFix, Master Response 28 related to operational criteria, and Master Response 29 related to environmental compliance.

RECIRC Ltr#	Cmt#	Comment	Response
		and results in an inadequate environmental analysis. The RDEIR/SDEIS suffers from the same deficiencies described in Section 1.1.5 of CCWD's July 25, 2014 comment letter. Further, the RDEIR/SDEIS compounds the problem by stating that if sufficient water transfers from willing sellers cannot be identified to meet the spring Delta outflow criteria, "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." RDEIR/SDEIS, Section 4.1.2.2 at p. 4.1-6. This implies that a key element of the project description is dependent on yet-to-be-determined legal obligations. The end result is that the RDEIR/SDEIS fails to present the full range of impacts that may result from the future determination of this key project element. The RDEIR/SDEIS must be revised to provide a complete and accurate project description, and to provide a full and adequate impact analysis based on that project description, so that decision-makers and the public can understand the true extent of the project's potential adverse effects on water quality, water supply and other environmental resources.	
2597	6	The description of the revised Alternative 4 and new Alternative 4A includes requirements for positive net flows in Old and Middle Rivers at times when the Head of Old River Barrier (HORB) is closed, although positive net flows are not physically possible when the barrier is closed. The hydrodynamic and water quality modeling, which is based upon numerical formulations of real-world physical processes, thus cannot match the unrealistic project description. As discussed in Section 5.3 below, this inconsistency results in an inadequate and inconsistent project description and an insufficient evaluation of the project's water quality impacts. Old River and Middle River are natural distributaries of the San Joaquin River. Figure 3-1 [ATT2] shows the head of Old River where Old River branches off from the San Joaquin River near Lathrop in the south Delta. Downstream of the head of Old River, Middle River branches off from Old River. Water entering the Delta via the San Joaquin River (orange arrows on Figure 3-1) would naturally split at the head of Old River junction, feeding a northerly flow into Old and Middle Rivers; this is the only source of northerly net flow in Old and Middle Rivers (OMR). Net southerly flow in Old and Middle Rivers is caused by water diversions at intakes located south of the flow gages on Old and Middle Rivers. The CVP and SWP pumping plants in the south Delta (Jones and Banks, respectively) are the dominant cause of net southerly flow. Northerly net flow is positive OMR, while southerly net flow is negative OMR. The project description in the RDEIR/SDEIS indicates that the HORB will be closed from the start of the San Joaquin River salmon migration in January (assumed to be January 1 in the modeling) through June 15 except for real time operational (RTO) decisions for flooding, water stage, and water quality concerns. RDEIR/SDEIS, Section 4.1.2.2 at p. 4-1-13. Of these potential RTO modifications, only flooding concerns are quantified in the RDEIR/SDEIS; to alleviate the flooding concerns, the HORB will be opened when San Joaquin River flow as measured at Vernalis is greater than 10,000 cfs [cubic feet per second]. RDEIR/SDEIS, Section 4.3.7 at p. 4.3.7-180; see also 2013 BDCP Draft EIR/EIS, Chapter 3 at pp. 3-203 and 3-205. During this same time period each year from January to June, positive OMR is required in each month as follows:	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 model results indicate that salinity would increase in summer months in the Sacramento River at Collinsville under the operations of the entirety of the Alternative 4A as compared to the No Action Alternative. Alternative 4A includes operations of a permanently-installed Head of Old River Barrier. The comparative salinity results between Alternative 4A and the No Action Alternative and the Existing Conditions are generally similar or lower than the results presented in the RDEIR/SDEIS. Please see Master Response 4 related to alternatives development, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.

RECIRC Ltr#	Cmt#	Comment	Response
		-January - Wet* years -February - Wet* years -March - Wet* and Above Normal* years -April - when Vernalis flow > 5,666 cfs -May - when Vernalis flow > 5,666 cfs -June - when Vernalis flow > 3,500 cfs * Wet and Above Normal water year types are defined by the Sacramento River 40-30- 30 index. RDEIR/SDEIS, Section 4.1.2.2 at p. 4.1-8. Table 3-1 [ATT3] indicates the percent of time that positive OMR is required, the percent of time that the HORB may be closed without flood concerns (i.e., Vernalis flow is less than 10,000 cfs), and the combined occurrence of these two conditions for Alternative 4A. OMR is required to be positive when the HORB may be closed without flood concerns in a significant portion of the 82-year simulation period in all months from January through June. Overall, positive OMR is required when the HORB may be closed for at least one month between January and June in 67% of the years that were analyzed. However, as explained below, it is physically impossible for OMR to be positive with the HORB closed. Closure of the HORB blocks flow in the San Joaquin River from entering Old River which, as discussed above, is the only source of positive OMR; closure of the HORB thus prevents OMR from being positive. As a result, the project description for OMR flow requirements is internally inconsistent with the project description for HORB operation in two-thirds of the analysis period. This inconsistency is demonstrated by reviewing measurements of OMR flows at times when a barrier has been installed at the head of Old River in the past. Historically, a temporary barrier of rocks at the head of Old River has been constructed in the fall or spring. [Footnote 1: Revised Alternative 4 and new Alternatives 4A and 2D propose to replace this temporary rock barrier with a permanent operable barrier that will be opened and closed as indicated in the project description. Where the temporary barrier is typically installed for no more than 3 months a year (2 months in the fall and 1 month in the spring), the permanent barriers is proposed to be closed for over 7 months of the year (2 months in the fall and 5 ½ months in the winter and spring), which would dramatically alter Delta water quality.] Review of OMR flows that were measured when the HORB was installed confirms that OMR is never positive with the HORB installed (Figure 3-2 [ATT4]). Pumping at the existing CVP and SWP export facilities in the south Delta (Jones and Banks, respectively) contributes to negative OMR -- the greater the total pumping at the existing south Delta facilities, the more negative OMR (Figure 3-2). Limiting pumping at the south Delta facilities limits the negative OMR but cannot create positive OMR. Positive OMR can only occur with inflow from the San Joaquin River when the HORB is not installed. Since the project description for OMR flow requirements is internally inconsistent with the project description for HORB operation, the modeling cannot be configured to meet both requirements. Instead, the RDEIR/SDEIS modeling assumes that the HORB would be 50%	

RECIRC Ltr#	Cmt#	Comment	Response
		open at times when the project description indicates that the HORB would be closed. RDEIR/SDEIS, Section 4.1.2.2, Table 4.1-2, at p. 4.1-9. This partial opening in the modeling allows water to enter the south Delta through the HORB, which would not be possible if the HORB is closed as described in the project description. This inconsistency results in an underestimation of water quality impacts.	
2597	7	[ATT2: Figure 3-1. Regional map of the south Delta.]	The map attached is not considered a comment.
2597	8	[ATT3: Table 3-1. Frequency of Old and Middle Rivers and Head of Old River Barrier operating criteria for Alternatives 4 and 4A.]	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 4 related to alternatives development, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.
2597	9	[ATT4: Figure 3-2. Old and Middler River flow when Head of Old River Barrier is closed.]	Please see Master Response 4 related to alternatives development, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.
2597	10	The project description lacks an operations plan with information regarding how operation of existing water supply facilities will be modified (i.e., how the facilities will be "reoperated") to integrate the new facilities that are proposed by the BDCP/CWF [California WaterFix] into the water supply system. Consequently, the modeling utilized in the impacts assessment did not include reasonable logic for reoperation of existing facilities, resulting in unrealistic operations and an underestimation of water supply and water quality impacts. The SWP and CVP coordinate operation of their facilities, including operation of reservoirs located upstream of the Delta and operation of the diversion facilities within the Delta that export water to the San Joaquin Valley and southern California. The system is connected by natural waterways such as the Sacramento River and man-made canals such as the Delta-Mendota Canal. Operations in one location can affect operations throughout the system. For example, the amount of water released from the upstream storage reservoirs is inextricably tied to the amount of water pumped out of the Delta at the export facilities. The RDEIR/SDEIS fails to give adequate consideration to the changes to existing facilities operations that would necessarily occur due to implementation of the Preferred Alternative. This creates flaws in the analysis of water supply, water quality, and fisheries impacts. CCWD [Contra Costa Water District]'s July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS provides examples of these flaws (e.g., Sections 1.1.2, 2.3.2.1, and 2.3.2.2). These flaws remain in the RDEIR/SDEIS. Delta outflow in October is typically regulated by the Bay-Delta Water Quality Control Plan, with water released from upstream CVP and SWP reservoirs to meet minimum Delta outflow requirements or salinity standards. There is seldom enough precipitation in the watershed in October for natural Delta outflow to be in excess of these requirements. However, the BDCP modeling indicates that Delta outflow would exceed the amount necessary to meet minimum outflow requirements and salinity standards over 66% of the time in the early long term (ELT) for Alternatives 4/4A [Footnote 2: The RDEIR/SDEIS uses modeling for Alternative 4 under ELT conditions to assess impacts for Alternative 4A for both the H3 and H4 operational scenarios.] H3 and H4 (Figure 3-3 [ATT5]). In comparison,	Changes to SWP and CVP upstream operations assumptions for the action alternatives as compared to the Existing Conditions and the No Action Alternative are presented in Appendix 5A, Section B, CALSIM II and DSM2 Modeling Simulations and Assumptions, of the EIR/EIS. Changes in Delta outflows under the action alternatives as compared to the Existing Conditions and the No Action Alternative are also presented in Appendix 5A. Changes in Delta water quality are presented in Chapter 8. Water Quality, of the EIR/EIS. Changes in aquatic resources conditions upstream of the Delta are presented in Chapter 11, Fish and Aquatic Resources. As shown in Appendix 5A, Section C, of the Final EIR/EIS, the proposed project, Alternative 4A, is consistent with State Water Resources Control Board Decision 1641. As discussed in this comment, the criteria for Sacramento River flows at Rio Vista in October would become more critical with action alternatives that include north Delta intakes. Under the future operations, there would be a balance between operations of Delta Cross Channel closure to minimize effects on upstream reservoir storage and water quality criteria. Operations under 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. It is recognized that assumptions were used for the impact analysis in the EIR/EIS based upon modeling analyses; and that the real-time operations would provide more flexibility than the CALSIM II monthly-model time step. However, the incremental differences that could occur under the No Action Alternative conditions and Alternative 4A would be similar with different CALSIM II model assumptions in the No Action Alternative conditions and Alternative 4A. It should be noted that 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 4 related to alternative development, Master Response 5 related to BDCP/CA WaterFix, and Master Response 28 related to operational criteria.

RECIRC Ltr#	Cmt#	Comment	Response
		the No Action Alternative [Footnote 3: The No Action Alternative is used for comparison because it includes the same assumptions for hydrology and water demands, which have a direct effect on Delta outflow, as Alternative 4/4A. In contrast, the CEQA baseline includes different assumptions for hydrology and water demands than the No Action Alternative and Alternative 4/4A.] has excess Delta outflow in October only 2% of the time in the ELT. The dramatic increase in the occurrence of excess flow under Alternatives 4/4A H3 and H4 in the ELT is not as substantial in the late long term (LLT) and is probably the cause for the different impact determinations between the ELT (as analyzed in the RDEIR/SDEIS) and the LLT (as analyzed in the 2013 BDCP Draft EIR/EIS). Although excess October Delta outflow occurs less often in the Alternative 4/4A LLT modeling than in the Alternative 4/4A ELT modeling, the frequency of occurrence in the LLT modeling is also unrealistic. The excess Delta outflow simulated in Alternative 4/4A is due to the lack of a coherent operations plan. In particular, operational requirements for the new project facilities and modified operational criteria for the existing south Delta facilities were specified for the operational model (CalSim II) without recognizing that these new criteria for the proposed BDCP/CWF would upset the operations of the larger water supply system. In this instance, the modeling projects that Water Quality Control Plan requirements for flow in the Sacramento River at Rio Vista would cause releases from upstream reservoirs that cannot be captured at the south Delta facilities and instead become excess Delta outflow. This seldom happens in the No Action Alternative because there are no OMR [Old and Middle Rivers] requirements in October under the No Action Alternative, so that flow released to meet the Rio Vista requirements can be exported at the south Delta facilities. The project descriptions for the revised Alternative 4 and the new Alternative 4A indicate that that the south Delta facilities will be shut down for 14 days in October. The 14-day shut-down requirement is modeled as a requirement for OMR to be greater than -5,000 cfs [cubic feet per second] for the entire month of October -- even though there are no OMR requirements in the project description for October. When OMR is regulated, pumping at the CVP and SWP south Delta export facilities is limited. Since the modeling assumes OMR is regulated for the entire month of October, the water released from reservoirs to meet Rio Vista flow requirements cannot be fully captured at the south Delta facilities. In reality, the south Delta facilities would probably be able to capture the additional flows for the 17 days during which export pumping is permitted. For the remaining 14 days when the south Delta export facilities are shut down, the CVP and SWP, rather than increasing reservoir releases, are far more likely to limit the amount of reservoir releases that flow out to the San Francisco Bay by closing the Delta Cross Channel to meet Sacramento River flow requirements at Rio Vista flow requirements without creating excess Delta outflow. When the Delta Cross Channel gates are open, a portion of the Sacramento River flow enters the central Delta, reducing flow in the Sacramento River downstream of the Delta Cross Channel (Figure 3-4 [ATT6]). To meet flow requirements in the Sacramento River at Rio Vista, DWR and Reclamation have two options: (1) increase reservoir releases to increase the Sacramento River flow entering the Delta, or (2) close the Delta Cross Channel gates to increase the amount of flow that reaches Rio Vista without increasing Sacramento River inflow. The operational strategy to close the Delta Cross Channel to meet Rio Vista flows without unnecessary reservoir releases has been implemented recently in November of 2009 and in October of 2013 and 2014 (Reclamation, 2015 [ATT18]). This is the realistic operational	

RECIRC Ltr#	Cmt#	Comment	Response
		strategy that should have been used in the modeling. Failure to model this operational strategy, when it has in fact been implemented repeatedly in recent years, biases the salinity results in the water quality impacts analysis, showing reduced salinity with the project. In reality, when the Rio Vista flow requirements are met by closing the Delta Cross Channel instead of by releasing flow from upstream reservoirs, interior Delta salinity will increase with the project. The unrealistic excess Delta outflow in October freshens the modeled interior Delta salinity for many months. This is illustrated in Figure 3-5 [ATT7], which shows that excess Delta outflow in October freshens the water at CCWD's Old River Intake in October and that the freshening effect is maintained through December (blue bars in Figure 3-5). In contrast, during years without excess Delta outflow in October, Alternative 4/4A H3 increases the salinity at CCWD's Old River Intake in October, November, and December (orange bars in Figure 3-5). Further, averaging salinity over all years (green bars in Figure 3-5) underestimates the impacts that would occur. This discussion serves to show that the unrealistic assumption of excess Delta outflow results in a significant underestimation of salinity impacts as a result of the proposed project. Conversely, implementing and modeling an operations plan that corrects this unrealistic excess Delta outflow assumption would reveal greater salinity impacts due to the project.	
2597	11	[ATT5: Figure 3-3. Frequency of Excess Outflow in October.]	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 28 related to operational criteria, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.
2597	12	[ATT6: Figure 3-4. Closure of the Delta Cross Channel maintains higher flow in the Sacramento River.]	Please see Master Response 28 related to operational criteria, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.
2597	13	[ATT7: Figure 3-5. Excess Delta Outflow in the month of October during the Early Long Term biases the modeling results for multiple months.]	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 28 related to operational criteria, Master Response 14 related to water quality, and Master Response 5 related to BDCP/CA WaterFix.
2597	14	The environmental analysis for the new alternatives (Alternatives 4A, 2D and 5A) does not comply with the requirements under CEQA and NEPA to assess both short-term and long-term impacts. More specifically, the analysis for the new alternatives contains an evaluation of short-term effects projected to occur in the year 2025, but does not adequately evaluate the environmental impacts that could occur over the long term. The CEQA Guidelines make clear that the direct and indirect environmental effects of a proposed project "shall be clearly identified and described, giving due consideration to both	The three new sub-alternatives (4A, 2D, and 5A) evaluated in the RDEIR/SDEIS and Final EIR/EIS embody a different implementation strategy that would not involve a 50-year HCP/NCCP approved under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization under ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b) assuming a shorter project implementation period. Please see Master Response 4 related to alternatives development and Master Response 28 related to operational criteria. Alternative 4 is evaluated at the Late-Long-Term (LLT) timeframe because it would include 50-year incidental

RECIRC Ltr#	Cmt#	Comment	Response
		the short-term and long-term effects." CEQA Guidelines [Section] 15126.2(a); see also Neighbors for Smart Rail v. Exposition Metro Line Construction Authority, 57 Cal. 4th 439, 454 (2013). The NEPA regulations echo this requirement, stating that, in assessing the significance of an impact, "[b]oth short- and long-term effects are relevant." 40 C.F.R. [Section] 1508.27(a). Thus, under both statutes, the environmental analysis must assess short-term and long-term impacts. As CCWD [Contra Costa Water District] noted in its July 25, 2014 comments, the analysis in the 2013 BDCP Draft EIR/EIS of the initial set of alternatives for the proposed project violates these requirements by limiting the impact analysis to the year 2060, thus failing to evaluate the impacts over the short and medium term. The analysis in the RDEIR/SDEIS of the new alternatives (Alternatives 2D, 4A and 5A) creates the opposite problem, by failing to present an adequate evaluation of impacts beyond the year 2025. The analysis for the new alternatives states that the "early long term" -- which is based on conditions projected to occur in the year 2025 -- is used for evaluating the impacts of the new alternatives. RDEIR/SDEIS, Section 4.1.6 at p. 4.1-42; see also id., Section 4.1.2.1 at p. 4.1-5 (describing Alternative 4A and noting that operations are evaluated at the early long term, "which is associated with conditions around 2025"); Section 4.1.3.1 at p. 4.1-22 (Alternative 2D); Section 4.1.4.1 at p. 4.1-30 (Alternative 5A). The document goes on to explain that "because the project would continue indefinitely, the analysis qualitatively examines impacts at the Late Long-Term timeframe for Alternatives 4A, 2D, and 5A, but does not make a CEQA or NEPA conclusion. . . ." Id, Section 4.1.6 at p. 4.1-42. In other words, for impacts beyond the year 2025 -- which will be less than 10 years after project approval, and at around the same time as the onset of most of the project's operational impacts [Footnote 4: According to the RDEIR/SDEIS, construction is anticipated to last about a decade and operation of the project could begin as early as 11 years after permits are issued. RDEIR/SDEIS, Appendix A, Revised Chapter 3 at p. 3-6 (Alternative 4) and Executive Summary at p. ES-17 (Alternative 4A - stating that all aspects of construction would be identical to Alternative 4).] -- the analysis does not fulfill its critical role as an informational document, because it does not quantify the impacts and does not make a conclusion on whether the impacts are significant or not. And without a significance conclusion, it cannot be ascertained whether mitigation should be evaluated for the long-term effects and, if so, what mitigation measures would be feasible. This is a critical omission for a project of this magnitude, which will have a wide array of lasting impacts on water quality, water supply, surface and ground water, and aquatic resources. The environmental analysis should be revised to present an evaluation of both short-term and long-term effects, as required under CEQA and NEPA. This analysis should make findings on whether the long-term effects are considered to be significant, so that the decision-makers and the public are fully apprised of what the project's effects will be and whether measures are needed to mitigate those effects over the full life of project operations, not just the first few years.	take permits. 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. For NEPA impact assessment purposes, Alternatives 4A, 2D, and 5A are compared to the No Action Alternative for the Early Long-Term timeframe. Where impacts differ at the Late Long-Term (LLT) period, discussions of these effects were included in the analysis. For CEQA impact assessment purposes, they are compared against Existing Conditions, as generally described in the EIR/EIS.
2597	15	The analysis in the RDEIR/SDEIS for the new alternatives recognizes that the "early long term" scenario used to evaluate the impacts of the new alternatives includes the effects of climate change and sea level rise projected to occur in the year 2025. In other words, for purposes of the CEQA evaluation, the environmental impacts of the alternatives in 2025 -- plus the impacts of climate change in that year -- are compared to the 2009 baseline conditions. RDEIR/SDEIS, Section 4.1.6 at p. 4.1-42; and Section 4.2 at p. 4.2-1. As the	The EIR/EIS compares conditions under all action alternatives to the Existing Conditions, including both the effects of the no action alternative and the effects of climate change, sea level rise, and increased water demand in the Sacramento Valley (primarily the American River watershed), as described in Chapter 5 of the EIR/EIS. Please see Master Response 4 related to alternatives development and Master Response 14 related to water quality. The proposed conveyance facilities under each action alternative would not be operational until 2025, at

RECIRC Ltr#	Cmt#	Comment	Response
		analysis recognizes, "[t]he effects of climate change and sea level rise will foreseeably have some effect on the Delta environment during the ELT time period." Id., Section 4.2 at p. 4.2-1. Thus, under the CEQA approach used to evaluate the new alternatives, project impacts are lumped together with the future effects of climate change. The analysis concedes this point, stating on numerous occasions: "Because the action alternative modeling does not partition the effects of implementation of the alternative from the effects of sea level rise, climate change, and future water demands, the comparison to Existing Conditions may not offer a clear understanding of the impact of the alternative on the environment." See, e.g., RDEIR/SDEIS, Section 4.3.7 at pp. 4.3.7-24, 4.3.7-41, 4.3.7-60, 4.3.7-73, etc. By failing to offer this clear understanding, the impacts that are specifically attributable to the proposed project are obscured. The environmental analysis attempts to address this issue by explaining that the comparison under NEPA between the new alternatives and the 2025 No Action Alternative "is a better approach," on the ground that it isolates the effects of the alternatives from the effects of sea level rise, climate change and future water demands. See id. But according to the environmental analysis, the CEQA conclusions for the new alternatives, like the CEQA conclusions for the initial set of alternatives, are made in comparison to the 2009 existing conditions baseline. As the RDEIR/SDEIS explains: "The same 'Existing Conditions' baseline defined in the [2013 BDCP] Draft EIR/EIS applies to Alternatives 4A, 2D, and 5A, for the purposes of CEQA impact analysis. Therefore, all CEQA conclusions associated with Alternative 4A, 2D, and 5A are made in comparison to the same Existing Conditions baseline applied for all other alternatives." RDEIR/SDEIS, Section 4.1.6 at p. 4.1-42. Thus, the CEQA analysis admittedly is unclear in depicting the impacts of the new alternatives. This problem in the CEQA analysis cannot be fixed by pointing the reader to the different approach used for the federal NEPA evaluation, which compares project impacts against future no project conditions. As the California Supreme Court explained in the Neighbors for Smart Rail case, the CEQA Guidelines make clear that when the existing conditions baseline is used to determine a project's significant adverse impacts, as is the case here, this baseline "is not the same as the no project alternative, which takes into account future changes in the environment reasonably expected to occur if the project is not approved." 57 Cal. 4th at 454 (Supreme Court's emphasis); see CEQA Guidelines [Section] 15126.6(e)(1) ("The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline. . ."). This confirms that the RDEIR/SDEIS cannot use the no project/no action scenario to cure the defects in its CEQA baseline evaluation. To provide a clear picture of the CEQA analysis and conclusions, the RDEIR/SDEIS needs to be revised to compare the project's impacts against the CEQA baseline, without using future effects that are not attributable to the project to obscure the analysis. The lumping together of project impacts with the future effects of climate change not only obscures what impacts are attributable to the proposed BDCP/California WaterFix, it also obscures the mitigation that should be evaluated to address those impacts. To make matters worse, the project proponents assert that they are not obligated to make any contribution to mitigation that is needed "solely or substantially" to address adverse water quality effects due to sea level rise or changed precipitation patterns attributable to climate	which time, the increased water demands would have occurred in accordance with the published urban water management plans and agricultural water management plans for entities that effect the American River watershed flows. Also, by 2025, climate change and sea level rise would have changed surface water and water supply conditions.

RECIRC Ltr#	Cmt#	Comment	Response
		change. RDEIR/SDEIS, Appendix A, Revised Appendix 3B at p. 3B-73. Thus, including future climate change effects as part of the project impact analysis allows the project proponents to disavow obligations to mitigate impacts.	
2597	16	[ATT8: Table 5-1. Comparison of Modeling Assumptions vs. Actual Baseline Conditions, Project Description of No Action Alternative and Project Description of New Alternatives.]	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 1 related to baseline, Master Response 4 related to alternatives development, Master Response 14 related to water quality, and Master Response 30 related to modeling.
2597	17	The CEQA baseline used in the RDEIR/SDEIS omits a current regulatory flow requirement that maintains relatively low salinity in the Delta in the fall of relatively wet years. This requirement is included in the alternatives modeling. Since the impacts of the alternatives are measured under CEQA against the baseline conditions, excluding the salinity benefits from the baseline, while including them in the evaluation of the alternatives, serves to mask the true extent of the project's negative effects on salinity. The 2008 USFWS Biological Opinion (BiOp) specifies that during the months of September, October, and November that follow a relatively wet year [Footnote 5: Specifically, "wet" or "above normal" water years as defined by the Sacramento Valley 40-30-30 index.], operation of the CVP and SWP must be modified to reduce salinity in the western Delta as indicated by the location of the two parts per thousand isohaline (i.e., X2); this action is commonly referred to as "Fall X2." Although the Fall X2 requirement was adopted in 2008, Fall X2 was not modeled as part of the CEQA baseline. By modeling Fall X2 as part of the alternatives but not the baseline, the benefits in water quality that are due to implementation of Fall X2 appear as benefits attributable to the project in the impacts analysis, which underestimates the project's true salinity effects. See Section 2.1.1.2 of CCWD [Contra Costa water District]'s July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS.	Please see Master Response 1 related to baseline, Master Response 4 related to alternatives development, Master Response 14 related to water quality, and Master Response 30 related to modeling.
2597	18	The modeling for the No Action Alternative reveals a problem: this modeling does not match the description in the RDEIR/SDEIS of the No Action Alternative so that the true extent of the project's impacts as measured against the No Action Alternative cannot be determined, affecting both the CEQA and the NEPA analysis. Under NEPA, the No Action Alternative serves as the baseline for measuring the impacts of the project alternatives. Therefore, without accurate modeling of No Action Alternative, the impact assessment for the project alternatives is faulty and unreliable. Under CEQA, the No Action (or No Project) Alternative provides a different -- but no less important -- function, which "is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." CEQA Guidelines [Section] 15126.6(e)(1); see also Neighbors for Smart Rail, 57 Cal. 4th at 454. But if the impacts of the No Action/No Project Alternative are not accurately depicted, then this comparison is not accurate and does not inform the decision-makers as it should. The underlying problem is that the No Action Alternative was substantially reformulated in the 2015 RDEIR/SDEIS, yet the modeling was not updated to reflect this new formulation. The 2008 USFWS Biological Opinion specifies that 8,000 acres of tidal marsh must be	For additional information regarding baseline considerations and the No Action Alternative, please see Master Response 1.

RECIRC Ltr#	Cmt#	Comment	Response
		restored within 10 years (i.e., by 2018) and the 2009 NMFS Biological Opinion requires floodplain habitat restoration with an initial target of 17,000 to 20,000 acres. Many tidal marsh restoration projects are in the planning stages and DWR and Reclamation are preparing a draft EIR/EIS for the Yolo Bypass Salmonid Habitat Restoration and Fish Passage project to satisfy the floodplain habitat restoration targets. As explained in CCWD [Contra Costa Water District]'s July 25, 2014 comment letter, the 2013 BDCP Draft EIR/EIS improperly excluded these required habitat restoration actions from the No Action Alternative. The RDEIR/SDEIS changes course, specifying that "enhancements to the Yolo Bypass and 8,000 acres of tidal habitat restoration areas would be developed under the No Action Alternative (ELT)." RDEIR/SDEIS, Section 4.2.7 at pp. 4.2-19; see also id., Section 4.1.2.3 at p. 4.1-15; Section 4.1.6 at p. 4.1-42. However, modeling conducted for the ELT [Early Long Term] No Action Alternative assumed no implementation of Yolo Bypass improvements or tidal habitat restoration. Id., Section 4.2.7 at pp. 4.2-18 to 4.2-19. After acknowledging this discrepancy, the RDEIR/SDEIS states: "In general, the significance of this difference is the assessment of bromide, chloride and EC [electrical conductivity] 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." Id., Section 4.2.7 at p. 4.2-19. But there is no evidence presented in the RDEIR/SDEIS to support this conclusion. As discussed in Section 1.2.2 of CCWD's July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS, the effect of habitat restoration on water quality depends on the location, timing, and design of the habitat restoration actions. Without this information, it is not possible to determine if the failure to model the habitat restoration actions required in the USFWS and NMFS Biological Opinions underestimates or overestimates salinity for the No Action Alternative, to what extent salinity levels might differ, and where in the Delta these effects would be realized. With an uncertain baseline, the impacts of the project cannot be ascertained.	
2597	19	Unlike the initial set of alternatives discussed in the 2013 BDCP Draft EIR/EIS, the new alternatives (including Alternative 4A, the new Preferred Alternative) would not serve as habitat conservation plans and do not include a significant habitat restoration component. RDEIR/SDEIS, Executive Summary at p. ES-3. This is a dramatic change in approach for implementing the project and a major impetus for preparing the RDEIR/SDEIS. But despite this significant change in the project, the modeling used to evaluate the impacts of the new alternatives still includes the extensive habitat restoration that is part of the alternatives set forth in the 2013 BDCP Draft EIR/EIS. As discussed below, this has the effect of underestimating the project salinity impacts. The tidal marsh habitat and flood plain enhancements that are required by the 2008 USFWS and 2009 NMFS Biological Opinions -- which the RDEIR/SDEIS describes as being developed under the No Action Alternative [NAA] at ELT [Early Long Term] but does not model as part of the NAA ELT -- are modeled as part of each of the new project alternatives that are analyzed in the RDEIR/SDEIS. Furthermore, even though the new alternatives would no longer serve as a habitat conservation plan, the modeling includes 17,000 acres of tidal marsh in addition to the requirements in the USFWS and NMFS Biological Opinions, for a total of 25,000 acres of tidal marsh. As the environmental analysis explains, "[I]mpact analyses reliant on physical modeling apply results consistent with an 'Early Long Term' timeframe. Based on the assumptions used for the original purposes of these model	For additional information regarding baseline considerations and the No Action Alternative, please see Master Response 1.

RECIRC Ltr#	Cmt#	Comment	Response
		runs, these results also assume implementation of two elements, Yolo Bypass improvements and 25,000 acres of tidal wetland restoration. These two elements were included in the modeling because they were components of Alternative 4, for which the modeling was originally conducted. These two elements, however, are not proposed as part of Alternatives 4A, 2D, or 5A." RDEIR/SDEIS, Section 4.1.6 at p. 4.1-43. Thus, while Alternative 4A, the new Preferred Alternative, actually includes only 59 acres of tidal wetland restoration (id., Section 4.1.2.1 at p. 4.1-5), the impact assessment is modeled on the assumption that this alternative has more than 400 times this acreage of tidal wetland restoration. As a result of this failure of the modeling to capture the actual habitat restoration components of the new alternatives, the impacts of the alternatives are conflated with the effects of the assumed habitat restoration actions that were developed for the original alternatives in the 2013 BDCP Draft EIR/EIS. Section 2.1.5.1 of CCWD [Contra Costa water District]'s July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS explains how this conflation obscures and underestimates water quality impacts of operation of the proposed water supply facilities. After acknowledging that the Yolo Bypass improvements and tidal restoration are not part of the new project alternatives even though these features were included in the modeling, the RDEIR/SDEIS concludes that the inclusion of these features in the modeling probably overestimates salinity in the west Delta. "The analysis of boron, bromide, chloride, Dissolved organic carbon (DOC), electrical conductivity (EC), and nitrate under Alternative 4A in the ELT is based on modeling conducted for Alternative 4 in the ELT, which assumes implementation of Yolo Bypass Improvements and 25,000 acres of tidal natural communities restoration. As described above, Yolo Bypass Improvements are not a component of Alternative 4A and the amount of tidal habitat restoration (i.e., Environmental Commitment 4) would be significantly less than that represented in the modeling. In general, the significance of this difference is that the assessment of bromide, chloride, and EC for Alternative 4A, relative to Existing Conditions and the No Action Alternative (ELT), likely overestimates increases in bromide, EC, and chloride that could occur, particularly in the west Delta." RDEIR/SDEIS, Section 4.3.4 at p. 4.3.4-1 Similar statements are made in the evaluation of water quality impacts for Alternative 2D (id., Section 4.4.4 at p. 4.4.4-1) and Alternative 5A (id., Section 4.5.4 at p. 4.5.3-1). However, there is no evidence presented in the RDEIR/SDEIS to support this conclusion. To the contrary, the analysis in the 2013 BDCP Draft EIR/EIS clearly indicates that the particular configuration of tidal marsh included in the modeling underestimates salinity impacts, since the modeled restoration reduces salinity in the western Delta. For example, Figure 5-1 [ATT9] is a reproduction of a figure from the 2013 BDCP Draft EIR/EIS that shows the incremental change in electrical conductivity (EC) due to the ELT tidal marsh configuration (25,000 acres) that was assumed in the models; the locations in the west Delta are boxed for easy identification. At every location analyzed in the west Delta, the mean incremental change in EC due to the ELT tidal marsh is negative, indicating that the incorporation of the ELT tidal marsh reduces salinity at these locations for both models that are used to simulate salinity in the Delta (i.e., DSM2 and RMA). Multiple figures in the 2013 BDCP Draft EIR/EIS illustrate that the ELT tidal marsh configuration reduces salinity in the west Delta. See, e.g., 2013 BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2, Figures 6-26, 6-29, 6-32, 6-35, and 6-41 and Attachment 4, Figures 1-69 to 1-72. In short, the tidal marsh assumed for the ELT reduces salinity in the west Delta. Thus,	

RECIRC Ltr#	Cmt#	Comment	Response
		including the ELT tidal marsh in the modeling to simulate the project alternatives, when in fact the tidal marsh will not be constructed as part of the alternatives, underestimates the impacts to salinity in the west Delta that would be caused by the alternatives.	
2597	20	[ATT9: Figure 5-1. Change in Salinity due to the Eearly Long Term Tidal Marsh.]	Please see Master Response 14 on water quality.
2597	21	The new alternatives presented in the RDEIR/SDEIS would operate under a very different regulatory regime and in a very different manner than the initial set of alternatives studied in the 2013 BDCP Draft EIR/EIS. But the modeling used in the RDEIR/SDEIS to assess the impacts of the new alternatives has not been updated to reflect these important differences and still includes the same assumptions used in the 2013 analysis. As a result of this significant discrepancy, the RDEIR/SDEIS acknowledges that "there is notable uncertainty in the results of all quantitative assessments that refer to modeling results, due to the differing assumptions used in the modeling and the description of Alternative 4A and the No Action Alternative (ELT)." RDEIR/SDEIS, Section 4.3.4 at pp. 4.3.4-1 to 4.3.4-2; see also id., Section 4.4.4 at p. 4.4.4-1 (Alternative 2D), and Section 4.5.4 at p. 4.5.4-1 (Alternative 5A). Despite acknowledging this "notable uncertainty," the RDEIR/SDEIS nevertheless relies upon the old modeling inputs and assumptions to assess the impacts of the new alternatives. This causes the RDEIR/SDEIS to underestimate the true extent of the project's adverse water quality impacts. The 2013 BDCP Draft EIR/EIS impacts analysis was based upon modeling of Alternatives 2A, 4, and 5 at the late long term (LLT) time period, which includes climate change forecast for the year 2060, sea level rise of 45 centimeters, improvements to the Yolo Bypass and 65,000 acres of tidal marsh. During development of the 2013 BDCP Draft EIR/EIS, modeling was also performed for each of the alternatives at the early long term (ELT) time period, which includes climate change forecast for the year 2025, sea level rise of 15 centimeters, improvements to the Yolo Bypass and 25,000 acres of tidal marsh. The ELT modeling for Alternative 4 was included in the 2013 Draft BDCP, and DWR released the ELT modeling for the No Action Alternative and all project alternatives to interested stakeholders (DWR, 2013 [ATT20]). The problem now is that the modeling for the new alternatives has not been updated, so the project descriptions of the new alternatives do not match the modeling used to determine the impacts of those alternatives, as shown in Table 5.2 [ATT10]. For example, the new alternatives, as described in the RDEIR/SDEIS, maintain the salinity objective in the Bay-Delta Water Quality Control Plan at Emmaton, but the modeling used to analyze the new alternatives includes the modification of that objective that was part of the original Alternative 4. The new alternatives, as described in the RDEIR/SDEIS, maintain the existing operations of the Suisun Marsh Salinity Control Gates but the modeling does not include any operation of the gates. New Alternatives 4A and 2D, as described in the RDEIR/SDEIS, include significantly more closure of the proposed channel barrier located at the head of Old River than the initial alternatives, but the modeling continues to allow flow through the barrier. All of these differences between the way the proposed project is described and is planned to operate, and the way the project was modeled for purposes of the environmental impact analysis, contribute to incorrect findings in the RDEIR/SDEIS that the project's water quality impacts in the Delta are less than significant.	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. Alternatives 2D, 4A, and 5A include operations of the Suisun Marsh Salinity Control Gates in the same manner as under the Existing Conditions and No Action Alternative. As shown in Appendix 5A, Section C, of the Final EIR/EIS, Alternative 4A is consistent with State Water Resources Control Board Decision 1641. It also should be noted that the Delta Cross Channel assumptions in the CALSIM II model are consistent between the No Action Alternative and action alternatives in the EIR/EIS. Please see Master Response 4 related to alternatives development, Master Response 5 related to BDCP/CA WaterFix and Master Response 30 related to modeling.
2597	22	Inflow requirements to the Clifton Court Forebay in the new alternatives may also be incorrectly reflected in the modeling, but this is unclear as the RDEIR/SDEIS provides inconsistent information on this point. Inflow to the Clifton Court Forebay is currently	The reference to 10,300 cfs is related to the operations of the Banks Pumping Plant which would convey water from both the north Delta intakes and Clifton Court Forebay.

RECIRC Ltr#	Cmt#	Comment	Response
		limited to 6,680 cubic feet per second (cfs) plus one-third of the San Joaquin River flow as measured at Vernalis from December 15 to March 15. The 2013 BDCP Draft EIR/EIS proposed to relax this restriction and allow inflow to be 10,300 cfs at all times. 2013 BDCP Draft EIR/EIS, Chapter 3, Table 3-6 at p. 3-36. This table is not redlined in Appendix A of the current RDEIR/SDEIS, leaving the reader to assume that this relaxation is still sought for the revised Alternative 4. Also, the modeling used for the impacts analysis of the revised Alternative 4 and the new Alternatives 4A and 2D includes this relaxation. However, the RDEIR/SDEIS does not mention any changes regarding the inflow restrictions (RDEIR/SDEIS, Sections 4.1.2.2, 4.1.3.2, and 4.1.4.2), which would appear to indicate that the modification to Clifton Court Forebay inflow restrictions is not proposed as part of the new alternatives. If the relaxation of inflow requirements is indeed part of the new alternatives, it must be defined and consistently documented throughout the RDEIR/SDEIS. If the relaxation of inflow requirements is not part of the new alternatives, the modeling must be revised to reflect this fact.	Please see Master Response 4 related to alternatives development.
2597	23	The mere acknowledgement that there is "notable uncertainty" in the impact assessment due to the differences between the modeling assumptions and the way the alternatives are described and actually designed to operate is not sufficient to fix the problems in the RDEIR/SDEIS. Rather, to truly fix these problems, the modeling must be adjusted to align with the project that is being modeled, so that the impact assessment is accurate and reliable.	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 4 related to alternatives development.
2597	24	The sensitivity studies intended to support the use of outdated modeling to analyze the impacts of the new alternatives (including Alternative 4A, the new Preferred Alternative) do not address key aspects of the new project as proposed and do not account for the water quality effects that would be caused by the differences between the new and old alternatives. Thus the sensitivity studies do not support use of the old modeling. The RDEIR/SDEIS states 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." RDEIR/SDEIS, Section 4.1.6 at p. 4.1-43. While there are no similar determinations that the Lead Agencies may rely upon the modeling conducted for Alternative 2A at ELT [Early Long Term] to predict the effects of new Alternative 2D, and upon the modeling conducted for Alternative 5 at ELT to predict the effects of new Alternative 5A, it is evident that the RDEIR/SDEIS relies on the prior modeling to evaluate these new alternatives as well. The determination that modeling for Alternative 4 will accurately predict the environmental effects of Alternative 4A is based upon Appendix B.1 of the RDEIR/SDEIS, which presents a "brief sensitivity analysis" using the CalSim II operations model. RDEIR/SDEIS, Appendix B at p. B-1. The sensitivity study incorporates some corrections to the modeling assumptions to be consistent with the project description as shown in Table 5-2 [ATT10], specifically, removing the 25,000 acres of tidal marsh restoration, removing the Yolo Bypass enhancements, and removing the relaxation of the Emmaton salinity objective. However, the sensitivity study did not correct the modeling assumptions to make them consistent with the project description for the Head of Old River Barrier or the Clifton Court Forebay inflow restrictions. As a result, the sensitivity study does not represent a complete and accurate depiction of the project as it is currently described and proposed in the	The RDEIR/SDEIS did not include any new modeling for Alternatives 2D, 4A, and 5A, and instead relied upon sensitivity analyses based upon comparison of model results from the Draft EIR/EIS and Draft BDCP. 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. The modeling results presented in the Final EIR/EIS for the No Action Alternative at ELT and Alternatives 2D, 4A, and 5A replace the sensitivity analyses presented in the RDEIR/SDEIS. The CALSIM II model assumptions presented in the Final EIR/EIS represents the changes of removal of 25,000 acres of tidal habitat restoration, location of the D-1641 water quality compliance location at Emmaton, consideration of the Yolo Bypass habitat improvements in the No Action Alternative, Head of Old River Barrier operations, and Clifton Court Forebay inflow restrictions consistent with agreements with the USACE as under the No Action Alternative and Existing Conditions. Please see Master Response 4 related to alternatives development and Master Response 30 related to modeling.

RECIRC Ltr#	Cmt#	Comment	Response
		RDEIR/SDEIS.	
2597	25	[ATT10: Table 5-2. Comparison between project description of Alternative 4A, the modeling assumptions used for the impact analysis (Alternative 4 at ELT), and the modeling assumptions in the sensitivity study.]	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 4 related to alternatives development and Master Response 30 related to modeling.
2597	26	The sensitivity study only examined the results of the water supply operations model (CalSim II) and did not evaluate the changes in Delta flows or water quality that would result from these changes. Since the Delta modeling tools (DSM2 HYDRO, DSM2 QUAL, and DSM2 PTM) were not employed for the sensitivity study, the study does not correct the modeling assumptions to make them consistent with the project description for the operation of the Suisun Marsh Salinity Control Gates. As a result of all of these factors, the sensitivity study does not support using the old modeling for Alternative 4 to predict the effects on Delta water quality or aquatic resources for Alternative 4A. In fact, the second set of sensitivity studies presented in the RDEIR/SDEIS utilized the Delta modeling tools and show that the operational changes in the revised project description do affect water quality. This second set of studies therefore confirms that the outdated modeling used for the 2013 BDCP Draft EIR/EIS cannot be used to accurately reflect the impacts of revised Alternative 4 and the new alternatives. Furthermore, these problems are compounded by the inaccurate representation of Head of Old River Barrier operations in the modeling used for the impacts analysis, which masks potentially significant water quality impacts of the new Preferred Alternative.	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. Please see Master Response 14 related to water quality and Master Response 30 related to modeling. 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.
2597	27	The second set of sensitivity studies to assess water quality impacts was used only to determine whether the project would exceed water quality standards, and does not address the provisions of the CEQA Guidelines specifying that significant water quality impacts can occur even without violating water quality standards, when the project would "otherwise substantially degrade water quality." The studies themselves demonstrate this problem by revealing that the Preferred Alternative will in fact substantially degrade water quality and have significant water quality impacts that were not reported in the RDEIR/SDEIS. The RDEIR/SDEIS repeatedly relies on sensitivity studies (presented in RDEIR/SDEIS, Appendix A, Appendix 8H, Attachment 1) for the water quality impacts analysis of Alternatives 2D, 4A, and 5A. For example, in discussion of water quality impacts in the Delta due to changes in electrical conductivity (EC), the RDEIR/SDEIS states: "[T]he analysis of EC under Alternative 4A is based on modeling conducted for Alternative 4 in the ELT, which assumes implementation of Yolo Bypass Improvements and 25,000 acres of tidal natural communities restoration. Also, the modeling was originally performed assuming the Emmaton compliance point shifted to Threemile Slough. However, Yolo Bypass Improvements are not a component of Alternative 4A and the amount of tidal habitat	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 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS. Regarding water quality degradation as a potential impact, this addressed in the significance criteria in Section 8.3.2.3, Effects Determinations in Chapter 8, Water Quality of the EIR/EIS. Thresholds #3 and #4 in this section were applied in each constituent impact assessment. Please also see Master Response 31.

RECIRC Ltr#	Cmt#	Comment	Response
		restoration (i.e., Environmental Commitment 4) would be significantly less than that represented in the Alternative 4A modeling. Also, Alternative 4A does not include a change in compliance point from Emmaton to Threemile Slough. Furthermore, there are several factors related to the modeling approach that may result in modeling artifacts that show objective exceedance, when in reality no such exceedance would occur. The 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. In order to understand the significance of all of these factors on the results, sensitivity analyses and other analyses were performed to evaluate the impact of maintaining the compliance point at Emmaton, the impact of having substantially less restoration than included in the modeling that was analyzed, and whether exceedances were indeed modeling artifacts or were potential alternative-related effects that may actually occur. For more information on these sensitivity analyses, refer to Chapter 8, Section 8.3.1.7, Electrical Conductivity, and Appendix 8H Attachment 1, both in Appendix A of the RDEIR/SDEIS. In this assessment, the modeling results are described and then in most cases are qualified in light of findings from the sensitivity analyses. Conclusions thus represent assessment of the combination of the modeling results and sensitivity analysis findings." RDEIR/SDEIS Section 4.3.4 at p. 4.3.4-23. The referenced sensitivity studies evaluate whether changes to the project description for Alternative 4 (such as operation of Suisun Marsh Salinity Control Gates) would reduce the water quality impacts associated with exceedances of salinity objectives. The studies are limited to this one issue and are not used to evaluate any other water quality impacts that could be caused by the new alternatives. But under CEQA, significant water quality impacts can occur without exceeding water quality objectives. This is why the CEQA Guidelines, in assessing whether a project's impacts are significant or not, ask both whether a project would result in a violation of any water quality standards and whether a project would "otherwise substantially degrade water quality." CEQA Guidelines, Appendix G, [Section] IX (Hydrology [and] Water Quality). In fact, as shown below, the sensitivity studies themselves reveal a substantial degradation of water quality and thus adverse water quality impacts in addition to exceedances of salinity objectives. The RDEIR/SDEIS' discussion of the sensitivity studies in Appendix A, Appendix 8H, Attachment 1 is limited to analysis of compliance with salinity objectives at the following locations and times: -Sacramento River at Emmaton (April through August) -San Joaquin River at San Andreas Landing (April through August) -Old River at Tracy Road Bridge (year round) -San Joaquin River at Prisoners Point (April and May) -Suisun Marsh (year round) CCWD [Contra Costa Water District] obtained the complete results of the sensitivity studies from DWR (DWR, 2015 [ATT21]) to examine the effects of the project modifications presented in the studies at broader spatial and temporal scales. The results indicate that while these modifications may have the desired effect of reducing violations of salinity standards, they also creates additional impacts that are not disclosed in the RDEIR/SDEIS.	

RECIRC Ltr#	Cmt#	Comment	Response
		Two examples are provided below: (1) Suisun Marsh Salinity Control Gate operations, which keep Suisun March fresh but increase salinity in the Delta; and (2) maintaining the salinity objective at Emmaton, which keeps salinity low in the summer when the Emmaton objective governs operations but raises Delta salinity in the fall and winter.	
2597	28	The project description for the revised Alternative 4 and the new alternatives includes operations of the Suisun Marsh Salinity Control Gates (SMSCG). However, the modeling that is used as the basis for the impacts analysis assumes no operation of the SMSCG. The RDEIR/SDEIS presents limited results from a sensitivity study that was designed to determine how operation of the SMSCG would alter Delta salinity. The study found that SMSCG operation freshens Suisun Marsh. However, the RDEIR/SDEIS does not disclose the effects that SMSCG operation would have outside of Suisun Marsh, in Suisun Bay and the Delta. The results of the sensitivity studies provided by DWR indicate that operating the SMSCG as proposed for the new alternatives is likely to create water quality impacts by increasing salinity throughout the Delta from October through March. Operation of the gates creates a net flow of fresh water from the Sacramento River near Collinsville into Suisun Marsh equivalent to about 2,800 cubic feet per second (cfs), thus reducing salinity within Suisun Marsh (Enright, 2008, slide 40 [ATT17]). The RDEIR/SDEIS contains graphs showing the reduction in salinity within Suisun Marsh in response to operation of the gates. RDEIR/SDEIS, Appendix A, Appendix 8H, Attachment 1 at p. 10 (Figures 9 and 4). However, diversions of the freshwater into Suisun Marsh via operation of SMSCG increase salinity in Suisun Bay and the western Delta (Enright, 2008, slides 43 and 44). The RDEIR/SDEIS does not disclose the degradation in water quality that SMSCG operation would have within Suisun Bay or the Delta. Figure 5-2 [ATT1] shows changes in salinity in the western Delta at Collinsville that are caused by SMSCG operations. The increase in salinity from October through March is an effect of project operations that is not captured by the outdated modeling that was used to evaluate water quality impacts. Table 5-3 [ATT12] illustrates the average monthly change in salinity at locations throughout the Delta due to operation of the SMSCG as specified in the sensitivity studies provided by DWR. The table is modeled after the tables in Appendix B to the RDEIR/SDEIS that are referenced in the water quality impacts sections, and provides a summary of the changes for each month at multiple locations within the Delta. In sum, the results of the sensitivity studies provided by DWR indicate that operating the SMSCG as proposed for the new alternatives is likely to increase salinity throughout the Delta from October through March relative to not operating the SMSCG. But as noted above, the modeling used in the impacts analysis for the new alternatives did not include operation of the SMSCG. As a result, the modeling underestimates the project's impacts to salinity throughout the Delta, with the greatest underestimation occurring in the western Delta.	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. Please see Master Response 14 related to water quality, Master Response 28 related to operational criteria, and Master Response 30 related to modeling.
2597	29	[ATT11: Figure 5-2. Monthly Average Salinity at Collinsville both with and without operation of the Suisun Marsh Salinity Control Gates.]	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.
2597	30	[ATT12: Table 5-3. Effect of operating the Suisun Marsh Salinity Control Gates.]	Please see Master Response 14 related to water quality. 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

RECIRC Ltr#	Cmt#	Comment	Response
			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.
2597	31	The project descriptions for the revised Alternative 4 and the new alternatives include maintaining compliance with the salinity objective at Emmaton. However, the modeling that is used as the basis for the impacts analysis does not maintain compliance of the salinity objective at Emmaton, but rather moves the salinity objective upstream to Three Mile Slough. The RDEIR/SDEIS discusses the reductions in Delta salinity in the summer that are expected due to maintaining compliance at Emmaton, but does not disclose the resulting increase to salinity in the fall and winter. Maintaining compliance at Emmaton (consistent with the project description) instead of moving the salinity objective to Three Mile Slough (consistent with the impacts analysis), would reduce salinity at Emmaton from April through August when the salinity objective is assumed to be in effect each year. Maintaining compliance also reduces yield of the project during those months, triggering operational changes during other months to recover the lost yield. The net effect of maintaining compliance with the salinity object at Emmaton is a reduction in salinity in the spring and summer, which is illustrated in the RDEIR/SDEIS, with an increase in salinity in the fall and winter, which is not disclosed in the RDEIR/SDEIS. Table 5-4 [ATT13] shows the average monthly change in salinity at locations throughout the Delta from the sensitivity studies provided by DWR (DWR, 2015 [ATT21]). The results confirm that maintaining compliance of the salinity objective at Emmaton as proposed for the new alternatives is likely to increase salinity throughout the Delta from October through March while reducing salinity from April through September. The RDEIR/SDEIS refers to the expected reduction in salinity in the summer to dismiss water quality impacts identified in the modeling results; however, the RDEIR/SDEIS does not disclose the expected increase in salinity in the fall and winter. By not including the salinity objective at Emmaton, the modeling for the new alternatives understates the salinity impacts from the project throughout the Delta from October to March. This is the same period that the project's salinity impacts are also underestimated due to the failure of the modeling to include operation of the Suisun Marsh Salinity Control Gates. Each modeling error thus compounds the other, resulting in a deficient analysis that fails to disclose or evaluate the true magnitude of the project's impacts on salinity levels.	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. Please refer to Master Response 30regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS.
2597	32	[ATT13: Table 5-4. Effect of not relaxing the salinity objective compliance location at Emmaton.]	Please refer to Master Response 30 regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS and Master Response 14 related to water quality. 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.
2597	33	The description of the revised Alternative 4 and the new Preferred Alternative, Alternative 4A, includes requirements for positive net flows in Old and Middle River [OMR] at times when the Head of Old River Barrier [HORB] is closed, even though this is not physically possible. As described below, as a result of this consistency, the project's water quality impacts are not adequately disclosed and evaluated. Closure of the HORB impacts the water quality in the south and central Delta; Figure 5-3 [ATT14] shows the geographical extent of the impacts in wet and dry years.	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 model results indicate that salinity would increase in summer months in the Sacramento River at Collinsville under the operations of the entirety of the Alternative 4A as compared to the No Action Alternative. Alternative 4A includes operations of a permanently-installed Head of Old River Barrier. Please refer to Master Response 30 regarding modeling and sensitivity analyses conducted to support the

RECIRC Ltr#	Cmt#	Comment	Response
		When the HORB is closed, flow from the San Joaquin River is prevented from entering the south Delta at Old River. During wet years, the project description specifies that OMR should be positive for much of the winter and spring. However, as discussed above, OMR cannot be positive with HORB closed; in order to prevent negative OMR during HORB closure, the south Delta export facilities would reduce diversions beyond what is modeled for Alternatives 4/4A and 2A/2D. With no positive flow into Old and Middle Rivers from the San Joaquin River and no negative flow in Old and Middle Rivers caused by operation of the south Delta export facilities, OMR would approach zero, creating stagnant conditions in the south and central Delta (indicated by the green shading in Figure 5-3(a)) and depriving these areas of water from the San Joaquin River, which during wet years is typically of very good quality. During dry years, the project as described in the RDEIR/SDEIS allows OMR to be negative while the HORB is closed. With no flow entering Old River from the San Joaquin River at the HORB, and with the export pumps operating, the San Joaquin River would flow north past the HORB, then turn south entering Old and Middle Rivers from the north and creating negative OMR (Figure 5-3(b)). The central Delta would receive this water heading from the north, and thus would receive a greater proportion of San Joaquin River water as compared to baseline conditions. This is an important consideration for water quality in the central Delta, since during dry years, San Joaquin River flows are generally low and the water quality is poor. Further, with the HORB closed, stagnant conditions would be created in the south Delta. For both wet and dry years, impacts would be greater than what is modeled. In the stagnant regions, flow in the channels would oscillate with the tides, but without net flow, the residence time would be very long. (Residence time is estimated by the volume of water in a region divided by the net flow through the region, so as the net flow approaches zero, the residence time approaches infinity.) Long residence times provide optimal conditions for harmful algal blooms as discussed in Section 2.2.1.2 of CCWD [Contra Costa Water District]'s July 25, 2014 comment letter on the 2013 BDCP Draft EIR/EIS. CCWD conducted a sensitivity study to evaluate the degree to which the analysis in the RDEIR/SDEIS underestimates the impacts of the new alternatives. Unlike the modeling used for the impact analysis in the RDEIR/SDEIS, CCWD's sensitivity study assumes that the HORB is closed when the project description indicates it should be closed. The CCWD study also reduced south Delta exports if necessary to attempt to meet the OMR requirement. Note that because no parameters are indicated in the project description to open the HORB for water quality or water stage concerns, this was not simulated in the CCWD study. Figure 5-4 [ATT15] illustrates the results for three wet years (Figure 5-4(a)) and three dry years (Figure 5-4(b)). In all six years, the negative water quality effects of the proposed project are greater than what is disclosed and evaluated in the RDEIR/SDEIS. During wet years, the percent of water diverted at CCWD's Old River Intake that would originate from Delta agricultural drainage increases with the project, reaching as high as 90%. When there is net flow -- either positive or negative -- in Old River, the agricultural drainage that enters the river is carried away from the south Delta. Conversely, the buildup of agricultural drainage is an indicator of a lack of flow with increased residence time, which is likely to lead to increased algal growth with its attendant operational, taste and odor, and public health impacts as discussed in Section 2.2.1.2 of CCWD's July 25, 2014 comment letter. During dry years, the percent of water diverted at CCWD's Old River Intake that would originate from the San Joaquin River increases, increasing CCWD's source water salinity. The modeling for the RDEIR/SDEIS, which does not include HORB operations that	RDEIR/SDEIS and Final EIR/EIS and Master Response 14 related to water quality.

RECIRC Ltr#	Cmt#	Comment	Response
		match the project description, misses this effect and underestimates water quality impacts.	
2597	34	[ATT14: Figure 5-3. Head of Old River Barrier affects water quality in the south and central Delta.]	Please refer to Master Response 30 regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS and Master Response 14 related to water quality.
2597	35	[ATT15: Figure 5-4. Head of Old River Barrier affects water quality in the south and central Delta, sensitivity study results.]	Please refer to Master Response 30 regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS and Master Response 14 related to water quality. 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.
2597	36	The RDEIR/SDEIS states that the new alternatives (Alternatives 4A, 2D and 5A) would eliminate almost all of the significant environmental impacts associated with Alternative 4, the previous Preferred Alternative. For the new alternatives, the RDEIR/SDEIS identifies only one significant water quality impact, from increased concentrations of electrical conductivity (EC), and two water quality mitigation measures, WQ-11a and WQ-11b. RDEIR/SDEIS, Sections 4.3.4 (Alternative 4A), 4.4.4 (Alternative 2D) and 4.5.4 (Alternative 5A). This approach is incorrect. The modeling that forms the basis of the impact analyses is fundamentally flawed. The inputs to the modeling of the three new alternatives do not match the descriptions of those alternatives in crucial respects. The result is an analysis that systematically obscures and underestimates impacts. Therefore, the project proponents have no basis to conclude that Alternatives 4A, 2D and 5A would not have significant water quality impacts. The new alternatives would in fact have significant water quality impacts. Accordingly, legally adequate mitigation must be identified for the true water quality impacts of Alternatives 4A, 2D and 5A as well as Alternative 4; the defects in the mitigation proposed in the 2013 BDCP Draft EIR/EIS were described in detail in Section 3 of CCWD [Contra Costa Water District]'s July 25, 2014 comment letter.	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. Please refer to Master Response 30 regarding modeling and sensitivity analyses conducted to support the RDEIR/SDEIS and Final EIR/EIS and Master Response 14 related to water quality.
2597	37	The RDEIR/SDEIS states that the new alternatives (Alternatives 4A, 2D and 5A) would eliminate almost all of the significant environmental impacts associated with Alternative 4, the previous Preferred Alternative. For the new alternatives, the RDEIR/SDEIS identifies only one significant water quality impact, from increased concentrations of electrical conductivity (EC), and two water quality mitigation measures, WQ-11a and WQ-11b. RDEIR/SDEIS, Sections 4.3.4 (Alternative 4A), 4.4.4 (Alternative 2D) and 4.5.4 (Alternative 5A). This approach is incorrect. With respect to bromide, the analysis of Alternatives 4A, 2D and 5A contains the same error as the analysis of Alternative 4. Specifically, the analysis assumes that because water purveyors' use of the Mallard Slough intake is "opportunistic," the alternatives' impact on the number of days when the intake is unavailable does not constitute a significant environmental impact. RDEIR/SDEIS, Section 4.3.4 at pp. 4.3.4-9 to 4.3.4-10 (Alternative 4A); Section 4.4.4 at p. 4.4.4-9 (Alternative 2D); and Section 4.5.4 at p. 4.5.3-9 (Alternative 5A). For the reasons described in Section 3 of CCWD [Contra Costa Water District]'s July 25, 2014 comment letter, this conclusion is inaccurate and adequate mitigation must be identified for	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. Please see Master Response 4 related to alternatives development and Master Response 5 related to BDCP/CA WaterFix generally.

RECIRC Ltr#	Cmt#	Comment	Response
		the significant bromide impacts of the new alternatives.	
2597	38	The RDEIR/SDEIS states that the new alternatives (Alternatives 4A, 2D and 5A) would eliminate almost all of the significant environmental impacts associated with Alternative 4, the previous Preferred Alternative. For the new alternatives, the RDEIR/SDEIS identifies only one significant water quality impact, from increased concentrations of electrical conductivity (EC), and two water quality mitigation measures, WQ-11a and WQ-11b. RDEIR/SDEIS, Sections 4.3.4 (Alternative 4A), 4.4.4 (Alternative 2D) and 4.5.4 (Alternative 5A). This approach is incorrect. The RDEIR/SDEIS identifies two new mitigation measures for the one acknowledged water quality impact of new Alternatives 4A, 2D and 5A. The EC water quality mitigation measures for Alternative 4A are WQ-11a (Adaptively Manage Diversions at the North and South Delta Intakes to Reduce or Eliminate Water Quality Degradation in Western Delta) and WQ-11b (Adaptively Manage Head of Old River Barrier and Diversions at the North and South Delta Intakes to Reduce or Eliminate Exceedances of the Bay-Delta WQCP [Water Quality Control Plan] Objective at Prisoners Point). RDEIR/SDEIS, Section 4.3.4 at pp. 4.3.4-30 to 4.3.4- 31. Because these mitigation measures do not set performance standards for water quality at or near CCWD [Contra Costa Water District] intakes that meet CEQA or NEPA requirements (see Section 3 of CCWD's July 25, 2014 comment letter), they must be revised to provide such actual mitigation.	The CALSIM II model output specifically includes diversions for Contra Costa Water District. As indicated in the tables entitled "CALSIM II Summary Reporting Metrics, Long-Term Average and Dry and Critical Year Averages" in Appendix 5A, Section C of the EIR/EIS, water deliveries to CVP water contractors in the San Francisco Bay Area Region (including Contra Costa Water District) would be similar or greater than Existing Conditions under all action alternatives; and similar or greater than the No Action Alternative under the action alternatives, except Alternatives 6, 7, and 8. As described in Chapter 5, Water Supply, of the EIR/EIS, the water supply impact analysis is based upon changes in water deliveries based upon SWP and CVP operations. The potential impacts and associated mitigations related to changes in water deliveries are presented in Appendix 5B, Response to Reduced South of Delta Water Supplies, and within applicable resource chapters, such as Chapter 14, Agricultural Resources. Please see Master Response 14 related to water quality, Master Response22 and Master Response 30 related to modeling. Mitigation Measures WQ-11a and WQ-11b include several components including coordination by DWR, regulating agencies, and Delta water users through Adaptive Management measures. Also refer to Master Response 33, Adaptive Management.
2597	39	The revised environmental analysis includes a change in the project objectives. Compare the 2013 BDCP Draft EIR/EIS, Chapter 2 at p. 2-2 to 2-4 with the July 2015 BDCP RDEIR/SDEIS, Section 1.1.4 at pp. 1-8 to 1-9. In particular, the initial project objectives cited the need to comply with Section 10(a)(1)(B) of the Endangered Species Act (ESA), 16 U.S.C. [Section] 1539(a)(1)(B), which authorizes the U.S. Fish [and] Wildlife Service to issue an incidental take permit for listed species pursuant to a habitat conservation plan. 2013 BDCP Draft EIR/EIS, Chapter 2 at p. 2-3. The initial project objectives also cited the goal of ensuring that "the BDCP meets the standards for an NCCP [natural communities conservation plan]." Id. For these reasons, the 2013 environmental analysis made clear that "the BDCP is a joint HCP/NCCP intended to address ESA [Endangered Species Act] and NCCPA [Natural Community Conservation Planning Act] compliance. . ." Id., Executive Summary at p. ES-13. But under the revised project objectives, there is no longer any reference to the HCP provisions of Section 10 of the ESA. RDEIR/SDEIS, Section 1.1.4.1 at pp. 1-8 to 1-9. Similarly, the revised objectives no longer refer to the goal of ensuring that "the BDCP meets the standards for an NCCP." Id. Consistent with this substantial change in the project objectives, the revised environmental analysis explains that the three new alternatives (Alternatives 4A, 2D and 5A) "would not serve as habitat conservation plans/natural community conservation plans (HCPs/NCCPs) under ESA Section 10 and the NCCPA," and would not include the extensive set of habitat restoration actions that have been proposed as part of the other 15 alternatives. Id., Section 4.1 at pp. 4.1-1. The revision of the project objectives in the RDEIR/SDEIS should have led to a reconsideration of those alternatives that previously were eliminated from the analysis on the ground that they did not meet the prior project objectives. For example, the "Portfolio" alternative -- the consideration of which has been urged by a broad range of water districts, municipalities, environmental organizations, business groups, and elected officials -- was excluded from the initial environmental analysis on the ground that it was beyond the scope of the former project objective of developing a Delta-focused habitat conservation plan and	Please see Master Response 4 related to alternatives development, Master Response 5 related to BDCP/CA WaterFix, Master Response 14 related to water quality, Master Response 30 related to modeling and Master Response 28 related to operational criteria.

RECIRC Ltr#	Cmt#	Comment	Response
		natural communities conservation plan. 2013 BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81. In particular, the prior analysis stated that while there is "much merit" to the Portfolio alternative, this alternative "does not qualify as an EIR/EIS alternative for the BDCP, as its scope is far greater than can be achieved through a Delta-focused HCP/NCCP." Id. But the project objective of developing an HCP/NCCP has now been abandoned. As a result, the environmental analysis needs to reexamine the Portfolio alternative, and other previously screened out alternatives, in light of the change in project objectives. The Portfolio alternative would involve a 3,000 cfs [cubic feet per second] north Delta intake and a single tunnel sized for 3,000 cfs gravity flow, with increased water storage south of the Delta, enhanced water recycling and conservation, and improvements to Delta levees (The Bay Institute et al., 2013). The alternative could substantially improve the reliability of water supplies for those who depend on Delta exports, while at the same time significantly reducing the environmental impacts of the proposed project and its enormous financial costs. One of the fundamental purposes of the project objectives is to assist in defining the range of alternatives that must be studied. As the CEQA Guidelines explain, an EIR must evaluate a range of reasonable alternatives that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening the project's significant impacts. CEQA Guidelines [Section] 15126.6(a), (c). Here, the Portfolio alternative was eliminated from detailed consideration on the ground that it did not conform to the project objective of the BDCP serving as a habitat conservation plan and natural communities conservation plan. But now that this objective has changed, the Portfolio alternative must be reexamined in light of the new project objectives. Without this reexamination, the decision-makers and the public lack sufficient information to assess whether there are feasible ways of achieving the new objectives while reducing the BDCP's significant impacts. The failure to conduct this reexamination is compounded by the fact that the RDEIR/SDEIS does not clearly identify the revisions to the project objectives. While the document presents redlined versions of the various environmental analyses to show what the text changes are compared to the 2013 BDCP Draft EIR/EIS, no such redline is presented to show the change in the project objectives. Instead, the reader must compare the two different versions of the project objectives to ascertain what the specific text changes are. This has the effect of masking the important changes to the objectives, which further hampers informed governmental decision-making and public participation on the critical issue of alternatives, which constitutes the heart of the environmental analysis.	
2597	40	CEQA states that an EIR should be organized and written in a manner that will make the information "meaningful and useful to the decision-makers and to the public." Pub. Res. Code [Section] 21003(b). The CEQA Guidelines reinforce this principle, stating that EIRs should be written in plain language "so that decision-makers and the public can rapidly understand the documents." CEQA Guidelines [Section] 15140. Similarly, under NEPA, federal agencies are directed to use plain language and to follow a clear format when preparing an EIS, so that the environmental analyses can be readily understood by the public. 40 C.F.R. [Sections] 1500.4(d), (e), 1502.8. The RDEIR/SDEIS fails to comport with these important principles. The presentation of information is confusing and is not susceptible to being readily understood even by experts, let alone by members of the general public. The water quality impact analysis is one example of this problem. Chapter 8 of the 2013 BDCP Draft EIR/EIS contains a water quality	Please refer to Master Response 8 related to lead agencies analyzing the project as a whole, Master Response 38 for comments pertaining to the length and complexity of the EIR/EIS. Please refer and Master Response 40 for information regarding outreach conducted for California WaterFix (and previously the BDCP).

RECIRC Ltr#	Cmt#	Comment	Response
		analysis for the initial set of alternatives. Some portions of this analysis have been revised, while other portions have not changed. Appendix A to the RDEIR/SDEIS contains a partial version of Chapter 8, which shows those parts of the chapter that have been revised. This version of Chapter 8, however, does not contain the parts of the chapter that have not been revised. Further, there is no way of knowing in advance -- without actually reviewing the new partial version of Chapter 8 -- which specific portions of the analysis have been revised and which portions have not changed. In addition, some of the section numbers have been modified; for instance, Section 8.2 of the 2013 document ("Environmental Setting/Affected Environment," see 2013 BDCP Draft EIR/EIS, Chapter 8, Section 8.2 at p. 8-5) is now Section 8.1 (see RDEIR/SDEIS, Section 8.1 at p. 8-3). Moreover, there is an entirely new chapter of the RDEIR/SDEIS, entitled "Section 4," that contains the evaluation of all of the environmental impacts for the three new alternatives, including water quality effects. The result is that if a reader wishes to conduct a comparative review of the water quality impacts of the different alternatives, he or she must first review the revised version of Chapter 8 to ascertain which portions of the prior water quality analysis have been revised; then review the old version of Chapter 8 to read the portions that have not changed, while accounting for the different section numbers between the two versions of the chapter to piece them together in a coherent fashion; then review the water quality portions of the environmental analyses in Section 4 for the three new alternatives. The RDEIR/SDEIS contains a one-page "Document Review Road Map," but this brief diagram does little to help the reader to decipher this extraordinarily complicated format. Rather, to truly understand the water quality analysis for this project, an intensive side-by-side review of three different voluminous documents (old Chapter 8, revised Chapter 8, and the water quality portions of new Section 4) is required. And this discussion is limited to one impact -- water quality. The various other discussions and analyses in the environmental document suffer from similar problems. Indeed, the same problem exists for the draft BDCP document itself: Appendix D to the RDEIR/SDEIS shows the revisions to the 2013 draft of the BDCP, but as with the environmental analyses, this appendix does not contain portions of the draft BDCP document that have not been revised. So, again, if a reader wishes to engage in a thorough review of the project that is being proposed for approval, he or she must sift through two different documents (the initial draft BDCP and Appendix D to the RDEIR/SDEIS), side by side, to determine what the details of the proposed project are. Not surprisingly, this complicated presentation format has generated substantial confusion among those trying to ascertain the details of the proposed project and its environmental impacts. This substantial confusion impedes a fundamental goal of the environmental review -- to present a clear and cogent analysis so that the decision-makers and the public can readily understand it. This is another flaw in the RDEIR/SDEIS warranting revision and recirculation.	
2597	41	The Executive Summary of the RDEIR/SDEIS is problematic. Under CEQA, an EIR must include a summary. CEQA Guidelines [Section] 15123. NEPA contains a similar requirement. 40 C.F.R. [Section] 1502.12 ("Each environmental impact statement shall contain a summary which adequately and accurately summarizes the statement."). Given the length, complexity and confusing organization of the RDEIR/SDEIS, the 105-page "Executive Summary" is especially important; in all likelihood, this is the only section of the RDEIR/SDEIS that most reviewers will read. Nevertheless, even looking at only one environmental topic -- water quality -- when the Executive Summary is compared to the impact analysis in the remainder of the document, it becomes clear that the Executive Summary is not accurate and	For more information regarding the document's length and complexity please see Master Response 38.

RECIRC Ltr#	Cmt#	Comment	Response
		consistently understates the significance of the environmental impacts. For example, whereas the Executive Summary states that the impact of Alternative 4 on bromide concentrations is less than significant and no mitigation is proposed, the actual impact analysis in the RDEIR/SDEIS states that the impact is significant, identifies revised Mitigation Measure WQ-5 for that impact, and concludes that the impact is significant and unavoidable even with the mitigation. Compare RDEIR/SDEIS, Executive Summary at p. ES-43 (Impact WQ-5) with RDEIR/SDEIS, Appendix A, Revised Chapter 8 at pp. 8-217 to 8-219. Similarly, the Executive Summary states that Alternative 4's chloride impacts are less than significant and that no mitigation is proposed, whereas the actual impact analysis in the RDEIR/SDEIS finds a significant impact, identifies revised mitigation measures WQ- 7a through WQ-7d, and concludes that the impact is significant and unavoidable even with the mitigation. Compare RDEIR/SDEIS, Executive Summary at p. ES-43 (Impact WQ-7) with RDEIR/SDEIS, Appendix A, Revised Chapter 8 at pp. 8-226 to 8-230. For electrical conductivity [EC], the Executive Summary correctly reports the determination in the RDEIR/SDEIS that the impacts of Alternatives 2D, 4, 4A and 5A all would be significant, but fails to report that the mitigation identified for Alternative 4 differs from the mitigation identified for the new alternatives. See RDEIR/SDEIS, Executive Summary at p. ES-44 (Impact WQ-11, erroneously summarizing mitigation for EC impacts); Section 4.3.4 at pp. 4.3.4-30 to 4.3.4-31 (EC mitigation for Alternative 4A); and Appendix A, Revised Chapter 8 at pp. 8-244 to 8-246 (EC mitigation for Alternative 4). And whereas the Executive Summary reports that the significant EC impacts of Alternatives 2D, 4, 4A and 5A all would be mitigated to a less than significant level, the actual impact analysis in the RDEIR/SDEIS states that the EC impact of Alternative 4 would be significant and unavoidable even with mitigation. RDEIR/SDEIS, Appendix A, Chapter 8 at p. 8-243. Thus, for three acknowledged significant and unavoidable impacts to water quality near CCWD [Contra Costa Water District] intakes, the mandatory Executive Summary of the RDEIR/SDEIS contradicts the impact analysis that it is supposed to be summarizing. The RDEIR/SDEIS must be revised and recirculated with an Executive Summary that is accurate and does not disavow the significant impacts that are identified in the actual environmental impact analysis.	
2597	42	The RDEIR/SDEIS fails to fulfill its basic function of promoting informed public decision-making and meaningful public participation. The analysis needs to be revised to conform to the requirements of CEQA and NEPA and it needs to be recirculated for another round of public review and comment.	Brochures, factsheets, webinars and videos are other tools the State has employed to educate the public about the development of the Proposed Project and the EIR/EIS process. Representatives from the State and Federal agencies 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. Please refer to Master Response 38 related to length and complexity of the environmental document and Master Response 40 for information regarding outreach conducted for California WaterFix (and previously the BDCP). More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41.
2597	43	[ATT16: Press release titled "New Plan Offers and Effective, Affordable Package of California Water Supply and Bay-Delta Fisheries Solutions."]	Please see Master Response 41 related to the open and transparent process of this project.
2597	44	[ATT17: Slide presentation about Suisun Marsh Salinity Control Gates.]	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 comment referencing the attachment or the Final EIR/EIS.

RECIRC Ltr#	Cmt#	Comment	Response
2597	45	[ATT18: Reclamation data on Delta Cross-Channel operations.]	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 comment referencing the attachment or the Final EIR/EIS.
2597	46	[ATT19: Email with schedule information related to Califoria WaterFix.]	Please see Master Response 38 related to length and complexity of the environmental document.
2597	47	[ATT20: 2013 modeling files from CalSim II and DSM2.]	Please see Master Response 30 related to modeling.
2597	48	[ATT21: 2015 modeling data from CalSim II and DSM2.]	Please see Master Response 30 related to modeling.
2598	1	On behalf of the Natural Resources Defense Council, The Bay Institute, Defenders of Wildlife, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, and San Francisco Baykeeper, we are writing to comment on the California WaterFix / Bay Delta Conservation Plan ("BDCP") Revised Draft Environmental Impact Report / Supplemental Draft Environmental Impact Statement ("RDEIR/SDEIS"). As you know, many of our organizations have been engaged in the BDCP process since its very beginning, and several years ago requested that the state and federal agencies formally evaluate a Portfolio Alternative (including new conveyance and new South of Delta storage) in the environmental documents prepared under the National Environmental Policy Act ("NEPA") and California Environmental Quality Act ("CEQA"). Unfortunately, the agencies have refused to analyze and consider such an approach in the RDEIR/SDEIS.	Please see Master Response 4 for more information regarding development of alternatives. 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. 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. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS, including the NRDC Portfolio-Based Proposal, Congressman Garamendi's Water Plan, and other similar concepts that would require actions that are beyond the scope of the proposed project. Please see Master Response 3 for information on the purpose and need for the proposed project. Please note that 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.
2598	2	The RDEIR/SDEIS Fails to Provide the Public and Decisionmakers with Clear and Understandable Information, in Violation of NEPA and CEQA One of NEPA's primary purposes is "to guarantee relevant information is available to the public." N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1072 (9th Cir. 2011). NEPA requires that an EIS's "form, content and preparation foster both informed decision-making and informed public participation." Churchill County v. Norton, 276 F.3d 1060, 1071 (9th Cir. 2001); see 40 C.F.R. § 1502.10 (EIS must contain format "which will encourage good analysis and clear presentation of the alternatives including the proposed action"). CEQA provides a similar mandate, requiring that, [a]n adequate EIR must be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences. It must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project. Kings Cnty. Farm Bureau v. City of Hanford, 221 Cal. App. 3d 692, 712 (1990) (internal quotation marks and citations omitted); see also Vineyard Area Citizens for Responsible	Revisions made to the Draft EIR/EIS in the RDEIR/SDEIS have been made to meet the letter and spirit of NEPA and CEQA. The RDEIR/SDEIS focuses the readers on revisions made to new alternatives 4A (the NEPA and CEQA preferred alternative), 2D, and 5A. The organization and structure of the RDEIR/SDEIS is summarized in the Executive Summary Document Review Roadmap to assist readers in focusing on those portions of the document they are most interested in and aid in navigating the document. Because the RDEIR/SDEIS is a partial recirculation of the Draft EIR/EIS, only those portions of the Draft EIR/EIS that were modified were included in the RDEIR/SDEIS. For this Final EIR/EIS, the analysis from the RDEIR/SDEIS and Draft EIR/EIS have been combined to disclose the alternatives impacts into one synthesized document organized in the same format as the Draft EIR/EIS. To aid in understanding the Final EIR/EIS, including Chapter 11, Fish and Aquatic Resources, summary comparisons of alternatives have been added to the Executive Summary and at the beginning of each resource chapter. All of the impacts and relevant mitigation measures are summarized in Table ES-8, Summary of BDCP/California WaterFix EIR/EIS Impacts and Mitigation Measures. Regarding the synthesis of potential effects across the various life stages, the BDCP/CWF has reviewed all available life cycle models for all species (see BDCP HCP document Appendix 5G, Fish Life Cycle Models) and determined that only two could be used in this process – IOS and OBAN. Both are winter-run Chinook salmon models. For the EIR/EIS, we analyze effects by impacts. These impacts are combined in summary tables to allow the reader to view all potential impacts across life stages as net effects. CEQA and NEPA do