

DEIRS Ltr#	Cmt#	Comment	Response
1602	1	<p>The issue that concerns me is WATER QUALITY which is vital for sustaining our livelihood and our safe drinking water.</p> <p>Under BDCP Executive Summary (ES-12, line 1) "Flow is important to control salinity intrusion into the Delta". Chapter 8, page 408, lines 36-38 states "outflow will be reduced by up to 864,000 acre feet under Alternative 4 and (page 409, lines 36-38) the result will be increased seawater intrusion". In Chapter 8, pages 436-438 the report states, "increased salinity will occur in much of the Delta". Appendix 8H admits salinity standards will be regularly violated.</p> <p>MY QUESTION: Is this legal?</p> <p>Current water law establishes common pool principle, area of origin priorities, and export of SURPLUS WATER ONLY. How can you justify violating the water regulations of the Bay Delta Accord, North Delta water contracts, and the Delta Reform Act water code 85320 in order to export more Northern California water for corporate agribusiness to continue irrigating toxic land on the west side of the San Joaquin Valley, an area with no drainage and therefore unsustainable?</p> <p>There are other plans proposed that are far less costly, provide additional water storage, protect and restore the Delta, and are just for all concerned.</p>	<p>For more information, please see Master Responses 4 (alternatives analysis), 14 (water quality), 26 and 32 (water rights), and 31 (compliance with the Delta Reform Act).</p> <p>DWR exercises its water rights in compliance with California water law and the terms of its permits. This means it stores surplus water in wetter times and delivers it for use at other times. The area of origin statutes do not give other water users a right to water the projects have properly diverted to storage at an earlier date. (El Dorado Irr. Dist. v. State Water Resources Control Bd. (2006) 142 Cal.App.4th 937, 976.) Some parties have described a "Delta pool," "common pool," or the Delta as a source of water, but this is not a generally accepted theory, nor is it part of California's water law.</p> <p>Please see Master Response 3, Purpose and Need.</p> <p>With regards to water quality please see Master Response 14.</p> <p>Also see Master Response 32, Water Rights issues and Master Response 26, Changes in Delta Exports.</p> <p>The commenter's reference to a common pool principle is not clear. With regards to balanced conditions in the Delta and proposed operational criteria, please review Chapter 3 of the 2013 EIR/EIS and updating analysis/alternatives in the 2015 RDEIR/SDEIS.</p> <p>For additional information regarding Water Rights, Please refer to Master Response 26.</p> <p>Other projects like water storage is described in appendices to the EIR/EIS (Demand Management and Water Storage).</p>
1603	1	<p>My concern is for the supply and quality of our ground water. Quoting from the BDCP EIR High Lights Statement, page 21, "Ground water is used throughout the Delta for agricultural, municipal, and industrial needs. However, an accurate accounting is NOT AVAILABLE because wells that pump ground water are NOT METERED." The EIR continues on page 22, "The State does not maintain a state-wide groundwater management program...the potential for groundwater degradation beneath restoration areas is NOT KNOWN".</p> <p>MY QUESTION: How can an environmental impact report be considered complete or dependable without reliable data on this crucial and vital part of the Twin Tunnel Project's impact on our environment?</p>	<p>As described in Chapter 7, Groundwater, in the Partially Recirculated Draft EIR/Supplemental Draft EIS, groundwater surveys would occur during the design phase to identify specific groundwater pre-construction conditions and potential effects on each well within the zone of influence of the dewatering operations. The revised Mitigation Measure GW-1 provides for a monitoring procedure and options for maintaining adequate water supplies for land owners that experience a reduction in groundwater production from wells due to construction-related activities, including dewatering. The monitoring would include both groundwater elevation and salinity. The effects of dewatering could be reduced through installation of seepage cutoff walls during dewatering.</p>
1604	1	<p>Many years and hundreds of millions of dollars have been spent on study efforts while the Delta system continues to be used for water conveyance in a manner for which it was not intended. We urge the State and federal government to quickly move forward with the Preferred Alternative (No. 4).</p>	<p>The comment does not raise any environmental issue related to the 2013 DEIR/EIS.</p>
1604	2	<p>In recent years the endangered species Biological Opinions for protection of Delta and Longfin Smelt and Chinook Salmon have resulted in massive cutbacks in exports by over 1.5 mill on acre-feet per year and without the BDCP, further cuts of another 1.0 mill on acre-feet per year could occur with new endangered species listings according to the BDCP briefing documents. This situation is a major impediment to appropriate allocation of water. The BDCP is the best hope we have, and it must be approved and implemented in a timely and cost-effective manner.</p>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the</p>

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1604	3	The City of Tustin strongly supports the BDCP Preferred Alternative (No. 4): It is critical to the state's economy and environment.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1604	4	Co-Equal Goals: The BDCP should be implemented in a manner consistent with the co-equal goals adopted by the State. Preferred Alternative (No. 4) is consistent with the Delta Reform Act of 2009's co-equal goals.	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the BDCP were focused on elements outside the scope of the environmental analysis or viability of the BDCP and other HCP/NCCP alternatives within the context of CEQA/NEPA (e.g., request of specific revisions to the BDCP related to mapping or references), no specific responses are provided and further consideration will be given to these comments, and any revisions to the Draft BDCP would only be made, if an HCP/NCCP alternative was ultimately approved at the conclusion of the CEQA/NEPA process..
1604	5	New Facilities and In-Delta Operational Flexibility: The modernization of the Delta conveyance system is essential in order for habitat restoration and conservation to have its intended effect; Preferred Alternative (No. 4), which incorporates the 9,000 cubic feet per second (cfs) three intake, twin tunnel conveyance system, provides the best balance between operational flexibility and modernizing the conveyance system for environmental benefit and water supply reliability.	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the BDCP were focused on elements outside the scope of the environmental analysis or viability of the BDCP and other HCP/NCCP alternatives within the context of CEQA/NEPA (e.g., request of specific revisions to the BDCP related to mapping or references), no specific responses are provided and further consideration will be given to these comments, and any revisions to the Draft BDCP would only be made, if an HCP/NCCP alternative was ultimately approved at the conclusion of the CEQA/NEPA process.
1604	6	Reduced Future Reliance: The 2009 Delta legislation called for water agencies to reduce future reliance on the Delta, not to become 100 percent "self-reliant". While the City of Tustin's major efforts in these areas will continue, it is important to note that "reduced reliance" does not equate to and was never intended to require a move to 100 percent "self-reliance", and the notion of co-equal goals was never intended to result in a future with significant reduction in exports from levels achieved before the 2008 bio-opinions.	The proposed project prepared in a manner to comply with the 2009 Delta Reform Act, as described in Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, of the Final EIR/EIS. The range of alternatives in the EIR/EIS includes alternatives which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. However, SWP and CVP water deliveries would continue under all alternatives. The amount of water DWR can pump from the new north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the water contractors. Operations for the proposed project would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as

DEIRS Ltr#	Cmt#	Comment	Response
			described in the 2008 and 2009 BiOps . For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31.
1604	7	<p>Plan Implementation and Regulatory Assurance: The BDCP must provide the needed implementation and regulatory structure and assurances to help achieve the co-equal goals.</p> <p>To the City of Tustin, this means that it is virtually impossible to predict the outcome of the BDCP habitat restoration efforts and endangered species population dynamics, and such a standard should not be required in the DEIR/DEIS.</p> <p>Furthermore, this means that changed circumstances under the operation of the BDCP, including the potential for new species listing, be incorporated in such a manner to result in a minimum impact on future water supply exports.</p>	Please see response to comment 1553-7.
1604	8	<p>Sound Science: It is critical that sound science is provided in order to assure the long-term success of the BDCP. The City of Tustin strongly supports the inclusion of independent scientific investigation and research to be included in the BDCP process.</p>	BDCP and the EIR/S have been prepared in compliance with environmental laws that require the use of the best available science (or equivalent; the ESA, for instance, call for use of the "best available scientific and commercial information"). Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input.
1604	9	<p>Cost Allocation: The City of Tustin supports the "beneficiary pays principle" in cost allocation for all responsible parties and beneficiaries.</p>	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the BDCP were focused on elements outside the scope of the environmental analysis or viability of the BDCP and other HCP/NCCP alternatives within the context of CEQA/NEPA (e.g., request of specific revisions to the BDCP related to mapping or references), no specific responses are provided and further consideration will be given to these comments, and any revisions to the Draft BDCP would only be made, if an HCP/NCCP alternative was ultimately approved at the conclusion of the CEQA/NEPA process.
1604	10	<p>Implementing Agreement: The Agreement is terms and conditions for on-going implementation of the BDCP and should be clear and well balanced with co-equal goals for proper implementation.</p>	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For detailed responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1604	11	<p>Economy, Environment and Water Management: The State Water Project (SWP) is critically important to the Orange County economy, environment and water management. Implementation of the BDCP is critical to Orange County's future.</p> <p>Orange County and our agency have invested heavily to diversify our water portfolio but the SWP remains a critical source of low salinity water supply that is currently unacceptably jeopardized by the lack of sustainability of the current Bay-Delta system.</p>	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the

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1604	12	Orange County relies on the SWP to support groundwater conjunctive-use programs and water recycling programs. It is an essential part of our water reliability strategy that sustains our citizens and businesses.	It is recognized in Chapter 5, Water Supply, and Chapter 7, Groundwater, of the EIR/EIS that deliveries of SWP supports ongoing conjunctive use programs in southern California.
1604	13	The City of Tustin supports the 9,000 cubic feet per second twin tunnel Preferred Alternative (No. 4) provided reasonable assurances are included regarding governance and future decision-making in the process. We strongly advocate for a seat at the table for the water Permittees in the various oversight groups. The investment and decision-making must be structured to achieve a positive outcome for both the SWP and Permittees and the ecosystem restoration in a collaborative, partnership manner.	The Authorized Entity Group is composed of the agencies receiving take authorization from the state and federal wildlife agencies (i.e., the permittees). Please see Master Response 5 regarding the adequacy of the governance structure proposed for the 2013 public draft BDCP. Note that the preferred alternative (Alternative 4A) no longer includes an HCP/NCCP but continues to include Operational Scenario H (9,000 cfs). A detailed description of the Collaborative Science and Adaptive Management Program is included in Chapter 3, Description of Alternatives, of the Final EIR/EIS.
1604	14	It is imperative for the State and Federal government to adopt and move the BDCP to implementation in order to achieve the 2009 legislation's co-equal goals of improving water supply reliability and ecosystem restoration and improved function by implementing the BDCP Preferred Alternative (4).	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the BDCP were focused on elements outside the scope of the environmental analysis or viability of the BDCP and other HCP/NCCP alternatives within the context of CEQA/NEPA (e.g., request of specific revisions to the BDCP related to mapping or references), no specific responses are provided and further consideration will be given to these comments, and any revisions to the Draft BDCP would only be made, if an HCP/NCCP alternative was ultimately approved at the conclusion of the CEQA/NEPA process.
1606	1	<p>Thank you for the opportunity to review and provide comments on the Draft Bay Delta Conservation Plan (Plan) and associated Draft Environmental Impact Report (DEIR) and Draft Environmental Impact Statement (DEIS) SCH# 2008032062.</p> <p>This project has a number of effects and impacts on the State Highway System, especially during the construction phase. We (Caltrans) appreciate the continued interagency coordination and cooperation with the Department of Water Resources (DWR) which met with us on May 30, 2014, and June 17, 2014, to discuss various areas of concern. We appreciate the efforts of the DWR staff to make locating specific information within the environmental documents easier, and look forward to reviewing the information table outlining the specific locations of various sections and material.</p> <p>As referenced in the DEIR Chapter 19 Section 19.1.2 (Roadway Facilities) and table 19-1 (Roadway Study Segments), a total of 114 roadway segments would be impacted by construction-related activities associated with Preferred Alternative 4 (Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5). Seven of these segments are State and federal highways which cover portions of three California Department of Transportation</p>	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. However, for more information on transportation impacts see Chapter 19 Transportation, EIR/EIS.

DEIRS Ltr#	Cmt#	Comment	Response
		(Caltrans) districts: 3, 4, and 10 including Interstate (I-) 5, I-80, I-205 and State Routes (SR) 4, 12, 84, 113, 160.	
1606	2	<p>Memorandum of Agreement (MOA) for Analysis and Mitigation:</p> <p>As discussed at our meeting on June 17, 2014, Caltrans will partner with DWR to develop a Memorandum of Agreement (MOA) which will detail the stipulations for analysis and mitigation for the State Highway System (SHS) as it pertains to this project. The MOA will formalize a universal interagency working arrangement with all affected Caltrans districts.</p> <p>The purpose of the MOA is to allow for the deferment of the traffic analysis and impact mitigation requirements until the construction contract and scope of work have been established. The MOA will be prepared before the certification of the FEIR/FEIS to ensure DWR's good faith effort to mitigate for yet to be identified traffic impacts from construction. The content addressed in this letter will be subject to the terms of the MOA.</p> <p>The current mitigation measures related to transportation include:</p> <ul style="list-style-type: none"> <li>- Mitigation Measure TRANS-1a: Implement site-specific construction traffic management plan</li> <li>- Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments</li> <li>- Mitigation Measure TRANS-1c: Make Good Faith Efforts to Enter Into Mitigation Agreements to Enhance Capacity of Congested Roadway Segments</li> <li>- Mitigation Measure TRANS-2a: Prohibit Construction Activity on Physically Deficient Roadway Segments</li> <li>- Mitigation Measure TRANS-2b: Limit Construction Activity on Physically Deficient Roadway Segments</li> <li>- Mitigation Measure TRANS-2c: Improve Condition of Affected Roadway Segments as Stipulated in Mitigation Agreements or Encroachment Permits</li> </ul>	The lead agencies agree with the summary of the purpose of the MOA in the comment. Chapter 19 of the EIR/EIS provides the mitigation measures and Mitigation, Monitoring and Reporting Plan for additional details regarding each mitigation included in the EIR/EIS, the parties responsible for implementing the action, where and when the action would take place and any reporting required.
1606	3	<p>Traffic Analysis Commitments:</p> <p>The DEIR/DEIS acknowledges impacts to the State Highway System (SHS) in multiple locations within the document. However, some locations provide vague language that requires clarification for contractual enforcement.</p> <ul style="list-style-type: none"> <li>- Chapter 19, Page 19-173, line 6, CEQA Conclusion: please clarify the statement "The BDCP proponents cannot ensure that the improvements will be fully funded or constructed prior to the project's contribution to the impact."</li> <li>- Chapter 19, Page 19-181, lines 14-15, CEQA Conclusion: please clarify the statement "as the BDCP proponents cannot ensure that the agreements or encroachment permits will be obtained from the relevant transportation agencies."</li> </ul>	These statements acknowledge the fact that proposed mitigation is dependent on other parties and may not be achievable prior to construction in all cases. However, the lead agencies will strive to implement planned mitigation prior to expected impacts. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.
1606	4	Traffic Analysis Commitments:	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

DEIRS Ltr#	Cmt#	Comment	Response
		Per our discussions on May 30, 2014, and June 17, 2014, we understand that performing a full traffic analysis for this project is challenging and poses issues, and thus information normally included was not available. It is understood that such language and analysis will instead be reflected in a Traffic Management and Traffic Monitoring Plan as well as a Memorandum of Agreement (MOA).	
1606	5	Traffic Analysis Commitments:  An ongoing concern from Caltrans is that the amount of exported material being hauled off, truck trips (and all trips) generated, is still unclear. Although most of the excavated material would be spread on the project site, we still have comments that should be addressed.	Because details of the number of workers, numbers of trips, and times/days of trips are not yet known, the analysis presumed a worst-case scenario, applying all construction truck and employee trips to each analysis hour from 6 AM to 7 PM. Details are provided in Draft EIR/EIS Appendix 19A. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.
1606	6	Traffic Analysis Commitments:  Because subsidence could affect levee road stability, the document should state where 25 million cubic yards of native excavated material is to remain on the project site, and the height of the piles.  The document should state how much and the routes where native excavated material is to be hauled on State facilities to offsite locations.  The document should state how many heavily laden truckloads of imported material are expected.	The locations of all of the RTM sites are identified in the mapbooks provided in Chapter 3, Description of the Alternatives. The potential exists for reuse of RTM, as described in the environmental commitment for RTM management in Appendix 3B, Environmental Commitments, but for purposes of the CEQA/NEPA analysis RTM was assumed to be left in place and not hauled off site to identify the worst case effect on agricultural land, wetlands and other resources.  Please also refer to Master Response 12 for additional discussion regarding the potential reusability of the excavated tunnel material.
1606	7	Traffic Analysis Commitments:  The document should include an analysis of all trips generated by the project. It should also discuss how the analysis was concluded on assumptions of locations, quantities, directions, and proportions of total trips for employee commutes.  Please clarify the number of workers (construction and operation).	Because details of the number of workers, numbers of trips, and times/days of trips are not yet known, the analysis presumed a worst-case scenario, applying all construction truck and employee trips to each analysis hour from 6 AM to 7 PM. Details are provided in Final EIR/EIS Appendix 19A.
1606	8	Traffic Analysis Commitments:  Please clarify where project trips will access State facilities. Via flagger on shoulder? Via local/county roads?	Mitigation Measure TRANS-1a - Implement Site Specific Construction Management Plan addresses local access to state facilities.  Prior to construction, the lead agencies will be responsible for project management and may contract with one or more construction management firms to assist in ensuring that construction contractors' crews and schedules are coordinated and that the plans and specifications are being followed. The lead agencies will also ensure development of site-specific construction traffic management plans (TMPs) that address the specific steps to be taken before, during, and after construction to minimize traffic impacts, including the mitigation measures and environmental commitments identified in this EIR/EIS. This will include potential expansion of the study area identified in this EIR/EIS to capture all potentially significantly affected roadway segments.
1606	9	Traffic Analysis Commitments:  The document should identify how much material may be barged elsewhere and how port operations may be affected.	Reassign for Waterways  Mitigation Measure TRANS-1a would reduce impacts on marine navigation by development and implementation of site-specific construction traffic management plans, including specific measures related to management of barges and stipulations to notify the commercial and leisure boating communities of proposed barge operations in the waterways.  The estimated quantity of materials to be moved by barge and the implications of such on port operations is

DEIRS Ltr#	Cmt#	Comment	Response
			addressed in Chapter 19, Transportation of the RDEIR/SEIS. As noted in that Chapter, up to 11,000 barge trips would be generated during project construction for up to five years. Under the Preferred Alternative, the lead agencies will ensure that a Barge Operations Plan is developed and implemented for facility construction. The requirements for the Barge Operations Plan are described in Draft EIR/EIS Appendix 3B, Environmental Commitments. This commitment is related to AMM7, Barge Operations Plan, described in BDCP Appendix 3.C. This plan will be developed and submitted by the construction contractors per standard DWR contract specifications.
1606	10	Traffic Management Plan (and Traffic Monitoring Plan):  An amendable (by mutual agreement) Traffic Management Plan (TMP) for construction vehicles should be submitted to Caltrans in order to minimize the impacts to State highway facilities. Coordination of this project with other construction and maintenance activities on State Routes will be needed for the entire (perhaps nine year) duration of project construction. All potential detours must be authorized with a district specific TMP. Probable detour routes for trucks and cars when bridges are not crossable (due to scheduled maintenance) should be specifically identified.	The lead agencies will be responsible for developing the TMPs in coordination with the applicable jurisdictions, including Caltrans for state and federal facilities and local agencies for local roads, transit providers, rail operators, and commercial barge operators, the U.S. Coast Guard, boating organizations, marinas, city and county parks departments, and the California Department of Parks and Recreation (DPR), where applicable. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.
1606	11	Traffic Management Plan (and Traffic Monitoring Plan):  Any hauling of materials should not occur during A.M. and P.M. peak period of travel on State facilities during demolition and construction of the proposed project. All vehicles loads should be covered so that materials do not blow over or onto the State ROW (Right of Way). Prior to starting a phase of work, please coordinate with appropriate district staff to determine if the heavy construction traffic will need to be staged during off peak hours and if the interchanges/intersections within the State ROW can accommodate the heavy construction traffic anticipated for each phase.	The lead agencies acknowledge this input and will record it for inclusion in traffic management plans. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.
1606	12	Traffic Management Plan (and Traffic Monitoring Plan):  The DEIR addresses the fact that given the limited number of workers involved at the large number of sites, it is not anticipated that routine operations and maintenance activities or major inspections would result in substantial increases of traffic volumes or roadway congestion.  Traffic monitoring plans as outlined in Mitigation Measures TRANS-1A will be implemented during construction to determine if and how much traffic is disrupted throughout the BDCP site-specific construction operations and that mitigation measures be implemented if and when required. Please work with appropriate district staff when proposing a Traffic Monitoring Plan and mitigation measures.	The lead agencies agree that coordination among all affected agencies is important. Your comment will be considered during the development of the traffic management plans.
1606	13	Mitigation:  During review of the DEIR/DEIS Caltrans notes and appreciates the inclusion of Mitigation Measure TRANS-1c: Make Good Faith Efforts to Enter into Mitigation Agreements to Enhance Capacity of Congested Roadway Segments.	This comment notes inclusion of Mitigation Measure Trans 1c.
1606	14	Mitigation:  Mitigation Measures TRANS 2a, 2b and 2c propose to prohibit activity on deficient roadways, and if feasible, limit activity on physically deficient segments, and improve	Table 19-5 of 2013 Public Draft EIR/EIS Chapter 19, Transportation, identifies segments of each roadway that have been identified as deficient. Mitigation Measure TRANS-1a notes, "Alternate access routes via detours and bridges to maintain continual circulation for local travelers in and around construction zones, including bicycle riders, pedestrians, and boaters, where applicable." Impact TRANS-7 discusses specific bicycle route

DEIRS Ltr#	Cmt#	Comment	Response
		condition of affected segments as per mitigation or encroachment permit agreements. The following State routes are expected to be operationally impacted due to already congested conditions: SR 4, I-5 (Florin Road to Pocket Road), SR 160, SR 12, SR 84, and I-80 (Suisun Valley Road to SR 12). Please identify specific locations and indicate any specialized accommodations for non-motorized users.	effects and mitigations for each scenario. Because bicycle non-motorized impacts are not limited to bicycle routes, additional specific measures for each affected segment will be included in creation of the traffic management plans.
1606	15	Highway Operations:  As the project entails digging under roadways for the Dual-Bore Tunnels, please contact the affected local transportation agencies to obtain as-built drawings that indicate location of utilities so that no service is interrupted and/or no damage occurs to existing facilities.	Identification of existing underground utilities would be performed as part of subsequent engineering design activities and DWR will work with affected agencies to obtain pertinent information.
1606	16	Highway Operations:  Please ensure that the construction of these tunnels at 150 feet under the surface does not affect the stability of the soil beneath the State Highway System (SHS) and the surrounding terrain.	As described in the revised Impact GEO-3, DWR would ensure that the geotechnical design recommendations, based on site-specific investigations, are included in the design of project facilities and construction specifications to minimize the potential effects from ground surface settlement and the stability of surrounding areas.
1606	17	Highway Operations:  Indicate locations of the vent/access shafts shown in the Proposed Tunnel System with respect to the State Right of Way (ROW) limits.	This information is contained in Volume 2 (drawings) of the Conceptual Engineering Report which is part of the references. A DVD of the reference materials is available at DWR's offices in West Sacramento.
1606	18	Highway Operations:  Provide staging plans if the ground surface is going to be affected during construction and notify Caltrans of impacts to traffic flow (if any).	As part of design plans and as described in Mitigation Measure TRANS-1a, construction traffic management plans will be prepared for Caltrans roadways affected during the construction period. The lead agencies will also ensure that any impacts to traffic flow are considered in creation of the TMPs.
1606	19	Highway Operations:  The realignment of California State Route 160 due to the proposed pumping stations may trigger Caltrans' direct involvement regarding land acquisition, potential relinquishment, and vacating State Right of Way (ROW). This may create the possibility of excess land disposal by the State. Cooperative and maintenance agreements, or a Memorandum of Understanding, may be needed.	DWR will coordinate with Caltrans with respect to any land disposal that may be triggered by a realignment of State Route 160 resulting from the project. The comment doesn't raise a specific issue pertinent to the adequacy of EIR/EIS.
1606	20	Highway Operations:  As mentioned previously, sight distance consideration would be important for the access points needed for the pumping plants. Each plant could be expected to contain two access points. The plant locations along SR 160 are positioned on relatively straight and flat sections with no apparent sight restrictions.	DWR has been working with Caltrans on all design activities related to State Route 160. All temporary and permanent facilities associated with SR 160 realignment will be designed and constructed in accordance with Highway Design Manual and other Caltrans requirements to ensure safety and minimize impacts.
1606	21	Recreation Access:  Bike Routes -- Regarding impacted bicycle routes, Plan proponents will need to provide alternate routes around construction zones as well as provide signage and barricades for provision of detours around construction sites. In addition, as per Chapter 15 of the Plan DEIR, there are project commitments to possibly enhance bicycle access to the Delta and potentially convert an abandoned rail line (between Sacramento and Walnut Grove) into a bicycle path. As these individually proposed projects progress, they will need to be	Where construction impedes access around or near existing recreation areas (e.g., Clifton Court forebay), the lead agencies would provide clear pedestrian, bicycle, and vehicular routes around or across construction sites.

DEIRS Ltr#	Cmt#	Comment	Response
		circulated to the appropriate Caltrans district office for review.	
1606	22	Recreation Access:  Parking -- If constructed, 8-foot shoulders would likely be used as parking areas by fishermen and others seeking recreation along the river. Because of safety and operational concerns, Caltrans recommends prohibiting parking if shoulders are less than 11 feet wide. These areas would need to be signed with "No Parking or Stopping Any Time" signs and aggressively enforced.	The comment is a safety recommendation for recreational users. It will be forwarded for inclusion in traffic management plans and for inclusion in roadway improvements.
1606	23	Recreation Access:  Fencing -- We recommend requiring that the pumping plant areas be separated from the State highway with secure fencing that prevents access by the public.	Chapter 3, Alternatives, and Appendix 3C, Construction Assumptions, provide detailed descriptions of the proposed project and other alternatives. As described in Chapter 3, associated facilities include an access road, fencing and security gates.
1606	24	Hydrology:  Proposed alternatives (1A, 2A, 3, and 4) will require construction of pipe intakes, canals, etc., from the Sacramento River. The construction of these facilities, which will cross under various State highways, is expected to impact existing highway drainage facilities and patterns. Detailed studies and plans need to be prepared to determine the impact of the proposed construction on existing highway drainage systems/patterns. Detailed plans for mitigation measures adopted to account for disruptions to any drainage facilities must be provided to each affected Caltrans district office for review.	As described in Chapter 19 of the RDEIR/SEIS, mitigation will be required to ensure that no significant impact to stormwater facilities from the proposed project occurs. Mitigation measure SW-4 specifically states that the lead agencies "will have to demonstrate no-net-increase in runoff due to construction activities during peak flows. To achieve this, proponents will implement measures to prevent an increase in runoff volume and rate from land-side construction areas and to prevent an increase in sedimentation in the runoff from the construction area as compared to Existing Conditions. To reduce the potential for adverse impacts from large amounts of runoff from paved and impervious surfaces during construction, operations, or maintenance, the proponents will design and implement onsite drainage systems in areas where construction drainage is required. Drainage studies will be prepared for each construction location to assess the need for, and to finalize, other drainage-related design measures, such as a new onsite drainage system or new cross drainage facilities. Based on study findings, if it is determined that onsite stormwater detention storage is required, detention facilities will be located within the existing construction area."
1606	25	Hydrology:  Please state how flood stages will be affected at emergency routes if fill is increased on islands.	For potential impacts to water elevation from construction and operations of the proposed project, please see Appendix 6A, Section 6A.6.3.3, FEIR/EIS. Also, see Section 6A.6.2.1.3 for a discussion on DWR consistency with the State Plan of Flood Control (SPFC), and Section 6A.6.1.2 for information on project consistency with USACE, CVFPB, and DWR flood standards and regulations.  Section 6A.6 also includes a discussion on levees modified by construction of the California WaterFix (CWF), including responsibilities of the lead agencies.  Before and/or during construction of the CWF water conveyance facilities, lead agencies will explore opportunities with local reclamation districts and the Central Valley Flood Protection Board (CVFPB) to address potential conflicts regarding levee maintenance, inspection, and flood fighting activities on project and non-project levees. DWR will look to enter into agreements with local reclamation districts with jurisdiction in the Delta to ensure levee management activities by both government and local agencies are not interrupted during construction of the water conveyance facilities. In addition, DWR will comply with all applicable flood protection requirements and regulations to ensure flood neutrality during construction and operations of the CWF.  Impacts on traffic safety are discussed in 4.3.15 of the RDEIR/SDEIS, Transportation, Impact TRANS-3.
1606	26	Hydrology:  Concerns exist in regards to the increased turbulence the pumps might make in the river flow at the nearby bridge supports and embankments. This turbulence may cause additional	Significant turbulence due to the presence of the pumps is not anticipated. As described under Impact WQ-29 in the EIR/EIS, facilities operations and maintenance is not expected to result in substantial changes in TSS and Turbidity, key indicators of any increased turbulence, under the project alternative relative to Existing Conditions in surface waters upstream of the Delta, in the Delta, and in the SWP/CVP Export Service

DEIRS Ltr#	Cmt#	Comment	Response
		erosion around bridge supports than they were designed for.	Areas.
1606	27	<p>Hydrology:</p> <p>Funding must be provided in the proposed project for any highway drainage mitigation measures. Proposed alternatives must be selected with proper allowance for future widening and expansion of the existing State Highway System. Any future widening or expansion projects would be outlined within the Transportation Concept Reports or Corridor System Mobility Plans written by the districts. Please contact the local district office for information regarding these reports.</p>	The commenter doesn't raise a specific issue pertinent to the adequacy of 2015RDEIR/SDEIS or the 2013 DEIR/DEIS.
1606	28	<p>Dike and Levee Maintenance, Repair and Upgrade:</p> <p>Activities involving demolition, reinforcement or rehabilitation of dikes or levees on which transportation facilities are built may potentially affect state transportation facilities. Also, built features on top of dikes and levees may contribute additional engineering considerations related to weight loading or compaction. These factors must be addressed through geotechnical and hydrological studies conducted in coordination with Caltrans at the project level.</p>	Please see Chapter 19 (Transportation), FEIR/EIS, for potential impacts to levee roads and future coordination and consultation with Caltrans. Also, see Section 6A.6.3.2 in Appendix 6A for impacts to levee integrity as a result of increased construction traffic.
1606	29	<p>Mitigation Monitoring:</p> <p>California Public Resources Code (PRC) Section 21081.7 directs CEQA lead agencies to submit transportation reporting or monitoring information to Caltrans for a project of statewide, regional, or area-wide significance. Caltrans has prepared guidance to establish clear and consistent procedures for public agencies to submit transportation mitigation reporting or monitoring information to Caltrans.</p> <p>Please refer to the following link for more information:  <a href="http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/Submittal_Guidelines_Mit_and_Mon_CovCkCert_07092004.pdf">http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/Submittal_Guidelines_Mit_and_Mon_CovCkCert_07092004.pdf</a></p>	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1606	30	<p>Landscape Architecture:</p> <p>Previous comments provided by Caltrans on July 5, 2013 regarding the BDCP Administrative Draft EIR/EIS (attachment 1 [ATT 1]) were not adequately addressed in the BDCP Administrative Draft Response to Comments (Attachment 2 [ATT 2]). Please ensure that prior comments regarding Landscape Architecture are considered and incorporated.</p>	<p>The comment notes that previous comments provided by Caltrans on July 5, 2013 regarding the BDCP Administrative Draft EIR/EIS (attachment 1) were not adequately addressed in the BDCP Administrative Draft Response to Comments (Attachment 2). This first paragraph does not indicate the responses deemed inadequate. However, Comment 8 is cited in the next paragraph so it is assumed that is the response in question. The commenter indicates that disturbances within the State ROW be restored to state of good repair consistent with the intent of meeting NPDES and SWRCB BMPs; existing vegetation, including naturally occurring plant material and highway plantings installed Caltrans or others, that are damaged or removed by project alternatives must be replaced; that any irrigation damaged or removed by project alternatives must be repaired or replaced; and plans for plant and irrigation systems within the State ROW must be developed in consultation with and approved by the appropriate Caltrans district office.</p> <p>The original Comment 8 asked "What effects will there be to highway planting and irrigation systems during construction and operation of the project?" The response provided to this was "There may be disruption to portions of highway planting and irrigations systems that lie within the construction footprint of the proposed project as described in Chapter 17. However, revegetation of disturbed areas would occur as a part of the project in accordance with guidance given by DWR's WREM No. 30a, Architectural Motif, State Water Project, and through coordination with local agencies through an architectural review process. Please also review Mitigation Measures AES-1a through 1g."</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Mitigation Measure AES-1g has been revised to indicate that “Existing vegetation within the State ROW, including naturally occurring plant material and highway plantings installed Caltrans or others, which is damaged or removed by project alternatives will be replaced in coordination with the appropriate Caltrans district office. Irrigation within the State ROW that is damaged or removed by project alternatives will be repaired or replaced. Plans for plant and irrigation systems within the State ROW will be developed in consultation with and approved by the appropriate Caltrans district office. Areas within the State ROW that are disturbed by project alternatives must be restored to a state of good repair consistent with the intent of meeting National Pollutant Discharge Elimination System (NPDES) and State Water Resources Control Board (SWRCB) Construction General Permit standards in terms of slope stabilization and permanent Best Management Practices.”</p>
1606	31	<p>Landscape Architecture:</p> <p>The response to Caltrans comment #8 in the BDCP Administrative Draft Response to Comments states that vegetative restoration of disturbed areas would be carried out in accordance with guidance given by DWR Water Resource Engineering Memorandum No. 30a and through coordination with local agencies. However, disturbance caused by the proposed project within a State Right of Way (ROW) must be restored according to the following:</p> <ul style="list-style-type: none"> <li>- Areas within the State ROW that are disturbed by project alternatives must be restored to a state of good repair consistent with the intent of meeting National Pollutant Discharge Elimination System (NPDES) and State Water Resources Control Board (SWRCB) Construction General Permit standards in terms of slope stabilization and permanent Best Management Practices.</li> <li>- Existing vegetation including naturally occurring plant material and highway planting installed by Caltrans or others that are damaged or removed by project alternatives must be replaced.</li> <li>- Any irrigation systems that are damaged or removed by project alternatives must be repaired or replaced.</li> <li>- Plans for plant and irrigation system replacement within State ROW must be developed in consultation with and approved by the appropriate Caltrans district office.</li> </ul>	<p>The comment notes that previous comments provided by Caltrans on July 5, 2013 regarding the BDCP Administrative Draft EIR/EIS (attachment 1) were not adequately addressed in the BDCP Administrative Draft Response to Comments (Attachment 2). This first paragraph does not indicate the responses deemed inadequate. However, Comment 8 is cited in the next paragraph so it is assumed that is the response in question. The commenter indicates that disturbances within the State ROW be restored to state of good repair consistent with the intent of meeting NPDES and SWRCB BMPs; existing vegetation, including naturally occurring plant material and highway plantings installed Caltrans or others, that are damaged or removed by project alternatives must be replaced; that any irrigation damaged or removed by project alternatives must be repaired or replaced; and plans for plant and irrigation systems within the State ROW must be developed in consultation with and approved by the appropriate Caltrans district office.</p> <p>The original Comment 8 asked “What effects will there be to highway planting and irrigation systems during construction and operation of the project?” The response provided to this was “There may be disruption to portions of highway planting and irrigations systems that lie within the construction footprint of the proposed project as described in Chapter 17. However, revegetation of disturbed areas would occur as a part of the project in accordance with guidance given by DWR’s WREM No. 30a, Architectural Motif, State Water Project, and through coordination with local agencies through an architectural review process. Please also review Mitigation Measures AES-1a through 1g.”</p> <p>Mitigation Measure AES-1g has been revised to indicate that “Existing vegetation within the State ROW, including naturally occurring plant material and highway plantings installed Caltrans or others, which is damaged or removed by project alternatives will be replaced in coordination with the appropriate Caltrans district office. Irrigation within the State ROW that is damaged or removed by project alternatives will be repaired or replaced. Plans for plant and irrigation systems within the State ROW will be developed in consultation with and approved by the appropriate Caltrans district office. Areas within the State ROW that are disturbed by project alternatives must be restored to a state of good repair consistent with the intent of meeting National Pollutant Discharge Elimination System (NPDES) and State Water Resources Control Board (SWRCB) Construction General Permit standards in terms of slope stabilization and permanent Best Management Practices.”</p>
1606	32	<p>Transportation Permit:</p> <p>The DEIR and DEIS addresses the fact that an increase in heavy construction traffic on State and local roadways will increase the potential for safety hazards such as conflicts with recreational and commuter traffic with farming operations. It can be inferred that said increase in heavy construction traffic will need to use State facilities to access the work sites. Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans.</p> <p>To apply, a completed transportation permit application with the determined specific</p>	<p>The comment explains the procedure for obtaining a transportation permit from Caltrans. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>route(s) for the shipper to follow from origin to destination must be submitted to:</p> <p>Caltrans Transportation Permits Office, 1823 14th Street, Sacramento, CA 95811-7119</p> <p>Please see the following website for more information:  <a href="http://www.dot.ca.gov/hq/traffops/permits/">http://www.dot.ca.gov/hq/traffops/permits/</a></p>	
1606	33	<p>Encroachment Permit:</p> <p>An encroachment permit must be obtained for work within, under or over the State Highway ROW (Right of Way). In order to maintain the integrity of the pavement, the BDCP will need to monitor and mitigate the roadway segment pavement through an encroachment permit in areas where the alternative results show an impact on a deficient roadway within the State ROW as outlined in the DEIR. Monitoring and mitigation will need to occur throughout the construction life of the project.</p> <p>If any project work (e.g., storage of materials, street widening, emergency access improvements, sewer connections, sound walls, storm drain construction, street connections, landscaping, etc.) will occur in the vicinity of State ROW, an Encroachment Permit is required prior to commencement of work. Please allow 2 to 4 weeks for a complete submittal to be reviewed and for a permit to be issued. When applying for an Encroachment Permit, please incorporate Environmental Documentation, Storm Water Pollution Prevention Plan/Water Pollution Control Plan (SWPPP/WPCP), Hydraulic Calculations, Traffic Control Plans, Geotechnical Analysis, ROW certification and all relevant design details including design exception approvals. For specific details on the Department's Encroachment Permits procedure, please refer to the Departments' Encroachment Permits Manual. The proposed project area spans three Caltrans districts. If work is proposed within State ROW in three districts, separate permit applications will be required.</p> <p>To apply, a completed encroachment permit application, certified environmental document for the project, and five sets of plans clearly indicating State ROW must be submitted to the Encroachment Permits office in the appropriate Caltrans district.</p> <p>Any necessary mitigation measures should be incorporated into the construction plans during the encroachment permit process. Additional permit information can be found online at the following website: <a href="http://www.dot.ca.gov/hq/traffops/developserv/permits/">http://www.dot.ca.gov/hq/traffops/developserv/permits/</a></p> <ul style="list-style-type: none"> <li>- Caltrans District 3 Encroachment Permits: 703 B Street, Marysville, CA 95901</li> <li>- Caltrans District 4 Encroachment Permits: 111 Grand Avenue, 6th Floor, P.O. Box 23660, Oakland, CA 94623-0660</li> <li>- Caltrans District 10 Encroachment Permits: 1976 E. Charter Way, P.O. Box 2048, Stockton, CA 95201</li> </ul>	<p>The comment explains the procedure for obtaining an encroachment permit. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>
1606	34	<p>District Contacts for General Questions:</p> <p>For District 3 (Sacramento and Yolo Counties) questions, please contact Eric Fredericks, Chief, Office of Transportation Planning - South, at (916) 274-0635, or <a href="mailto:eric.fredericks@dot.ca.gov">eric.fredericks@dot.ca.gov</a>.</p> <p>For District 4 (Contra Costa and Solano Counties) questions, please contact Erik Alm, Chief,</p>	<p>No issues related to the adequacy of the environmental impact analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/DEIS were raised.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Local Development-Intergovernmental Review, at (510) 286-6053, or erik.alm@dot.ca.gov.</p> <p>For District 10 (San Joaquin County) questions, please contact Tom Dumas, Chief, Metropolitan Planning, at (209) 941-1921, or tom.dumas@dot.ca.gov.</p> <p>As the project progresses, we will continue to be available to work in partnership with DWR. If you have any questions, please feel free to contact Alyssa Begley, Chief, Office of Community Planning, at (916) 651-6882.</p>	
1606	35	[ATT 1: Caltrans BDCP Comment Letter dated July 5, 2013.]	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 comment referencing the attachment or the Final EIR/EIS.
1606	36	<p>[From ATT 1:]</p> <p>Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Bay Delta Conservation Plan - Administrative Draft EIR/EIS. As the lead agency, the Department of Water Resources (DWR) is responsible for all project mitigation, including any needed improvements to the state highway system (SHS). The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Since an encroachment permit is required for work in the state right of way (ROW), and Caltrans will not issue a permit until our concerns are adequately addressed, we strongly recommend that the DWR work with Caltrans to ensure that our concerns are resolved during the environmental process, and in any case prior to submittal of an encroachment permit application. Further comments will be provided during the encroachment permit process.</p>	The Lead Agencies will continue to coordinate with Caltrans throughout the planning process.
1606	37	<p>[From ATT 1:]</p> <p>Transportation Management Plan and Construction Mitigation:</p> <p>Who will be responsible for implementing the Transportation Management Plan (TMP) and how will its conditions be enforced?</p> <p>Please consider daily sweeping to remove dust and debris from the roadway, thereby, reducing the number of claims for broken windshields and flat tires.</p>	The lead agencies will direct the contractors to perform these actions when existing roads are heavily used for construction traffic. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.
1606	38	<p>[From ATT 1:]</p> <p>Landscape Architecture:</p> <p>What effects will there be to highway planting and irrigation systems during construction and operation of the project?</p> <p>If there are to be any staging areas located within the state Right of Way (ROW), the locations and impacts need to be addressed in the environmental document and plan sets.</p>	There may be disruption to portions of highway planting and irrigations systems that lie within the construction footprint of the proposed project as described in Chapter 17. However, revegetation of disturbed areas would occur as a part of the project in accordance with guidance given by DWR's WREM No. 30a, Architectural Motif, State Water Project, and through coordination with local agencies through an architectural review process. Please also review Mitigation Measures AES-1a through 1g.
1606	39	[From ATT 1:]	As noted in Chapter 9 of the RDEIR/SEIS, DWR would ensure that all geotechnical design recommendations are included in the design of project facilities and construction specifications and are properly executed during construction to minimize the potential effects from geologic and seismic hazards. DWR has made this

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Soil and Geologic and Seismic Impacts:</p> <p>Hazards that require a special design to mitigate the hazard's effects to the public need to be considered as "Less than significant with mitigation." Please make the necessary corrections.</p>	<p>conformance and monitoring process an environmental commitment of the project (Appendix 3B, Environmental Commitments).</p>
1606	40	<p>[From ATT 1:]</p> <p>Traffic Impact Study (TIS), Highway Operations, and Trip Generation:</p> <p>Provide an analysis of all ingress/egress points to the project on the State Highway System (SHS) during construction, operations, and maintenance. Analysis should also include nearby intersections to the SHS sections impacted.</p> <p>Please include an analysis for trip generation and impacts to the SHS for when the project is operational. The analysis needs to include maintenance impacts.</p> <p>Expand the discussion on "concentrated" access during construction to include additional mitigation measures to prevent overloading at access locations contributing to significant impacts.</p>	<p>Roadway segments studied in the public draft EIR/S are inclusive of freeway entrances/exits that are likely to be utilized for construction-related activities and affected or utilized by personnel involved in maintenance and operation of the facilities following construction. The analysis has not been specifically broken out into these ingress/egress points, but if there are areas of specific interest, DWR engineers and the technical specialists are available to go over the results from these specific points. An intersection-level analysis was not performed because sufficient information regarding construction traffic patterns is not available for this level of analysis and it would be speculative and potentially misleading to assign construction related traffic by turning movement.</p>
1606	41	<p>[From ATT 1:]</p> <p>Mitigation Measure TRANS-1b and TRANS-2a: Limit hours or amount of construction activity on congested roadway segments and Table 16, ID CT 51, Pipeline column, TRANS-2.</p> <p>Please explain how these measures will be enforced?</p>	<p>Mitigation measures such as those cited by the commenter will be enforced by incorporating them into contract specifications and requirements for construction work on the proposed project. Please also refer to Master Response 22 for further discussion of the adequacy of mitigation measures and other environmental commitments.</p>
1606	42	<p>[From ATT 1:]</p> <p>Transportation Permit:</p> <p>Project work that requires movement of oversized or excessive load vehicles on state roadways, such as US 101, State Route (SR) 29, or SR 121 requires a transportation permit that is issued by Caltrans. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to the following address: Transportation Permits Office, 1823 - 14th Street, Sacramento, CA 95811-7119. See the following website link for more information: <a href="http://www/hq/traffops/permits/">http://www/hq/traffops/permits/</a>.</p>	<p>The comment explains the procedure for obtaining a transportation permit for oversized or excessive loads on state roadways. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>
1606	43	<p>[From ATT 1:]</p> <p>Encroachment Permit:</p> <p>Please be advised that any work or traffic control that encroaches onto the state Right of Way (ROW) requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating the state ROW must be submitted to: Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for</p>	<p>The comment explains the procedure for obtaining an encroachment permit. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		more information. <a href="http://www.dot.ca.gov/hq/traffops/developserv/permits/">http://www.dot.ca.gov/hq/traffops/developserv/permits/</a> .	
1606	44	[ATT 2: BDCP EIR/EIS Review Document Comment Form. Table submitted by Caltrans on July 5, 2013.]	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 comment referencing the attachment or the Final EIR/EIS.
1606	45	[From ATT 2:]  Comment: 1  Page:  Line:  Caltrans Comment: Figures 17-3a-d: Please provide a visual simulation (from the red circle below) that shows a re-aligned SR 160 within an intake area (see map below).  Comment Source: District 3  Category: More information	Simulations used in the analysis are representative in that they paint a picture of impacts that not only occur at the simulated locations but elsewhere in the affected study area. Please refer to Chapter 17, Section 17.3.1.2 Preparation of Visual Simulations. Please see Figures 17-76a & b (Alternatives 1A, 1B, 2A, 2B, 6A, 6B, 7, and 8) and 17-86a & b (Alternatives 2D, 4, and 4A) that include views of the intakes and road realignments near Intake 3. The realignment is present in the simulations but may be difficult to distinguish as the road is fairly flat at these locations. The realignments provide access to the intakes. Access is set back from the river in the simulations but both illustrate how the views from 160 would be affected. In addition, Figure 17-78 (Alternatives 1A, 1B, 2A, 2B, 6A, 6B, 7, and 8) shows the SR 160 realignment near Intake 4. This simulation is reflective of how other portions of SR 160 are likely to be affected by the realignment of SR 160, including near Intake 2, and is also representative of impacts that would result from Alternative 4A. Figure 3-19 and 3-19a also shows conceptual aerial views of what the realignment of SR 160 would look like.
1606	46	[From ATT 2:]  Comment: 2  Page: General  Line:  Caltrans Comment: Soil and Geologic and Seismic Impacts -- Hazards that require a special design to mitigate the hazard's effects to the public need to be considered as "Less than significant with mitigation." Please make the necessary corrections.  Comment Source: District 4  Category: Significance Threshold  Assigned to: ICF  Summary/Direction: As design-level details will not be fully complete prior to NEPA/CEQA analysis for all potential soil hazards, decisions regarding levels of significance are based on the available information and mitigation available at the time of this review. Please see Section 10.3.1 - Methods for Analysis in Chapter 10 - Soils at page 10-21, lines 5-43 of the BDCP EIR/EIS Public Draft for a detailed explanation of the thresholds of significance for soil hazards and the analysis methods applied in the Public Draft EIR/EIS.	This comment duplicates comment 1606-39 above. See also that response. As design-level details will not be fully complete prior to NEPA/CEQA analysis for all potential soil hazards, decisions regarding levels of significance are based on the available information and mitigation available at the time of this review. Please see Section 10.3.1 - Methods for Analysis in Chapter 10 - Soils at page 10-21, lines 5-43 of the BDCP EIR/EIS Public Draft for a detailed explanation of the thresholds of significance for soil hazards and the analysis methods applied in the Public Draft EIR/EIS.
1606	47	[From ATT 2:]  Comment: 3  Page: General	The BDCP lead agencies, including DWR, intend to coordinate with specifically Caltrans as well as other relevant agencies in developing and implementing the TMP, including determining how various conditions in it will be enforced.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Line:</p> <p>Caltrans Comment: Transportation Management Plan and Construction Mitigation -- Who will be responsible for implementing the Transportation Management Plan (TMP) and how will its conditions be enforced?</p> <p>Comment Source: District 4</p> <p>Category: Implementation responsibility</p> <p>Assigned to: ICF</p> <p>Summary/Direction: The BDCP project proponents, including DWR, intend to coordinate with specifically Caltrans as well as other relevant agencies in developing and implementing the TMP.</p>	
1606	48	<p>[From ATT 2:]</p> <p>Comment: 4</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Transportation Management Plan and Construction Mitigation -- Please consider daily sweeping to remove dust and debris from the roadway, thereby, reducing the number of claims for broken windshields and flat tires.</p> <p>Comment Source: District 4</p> <p>Category: Add detail</p> <p>Assigned to: ICF</p> <p>Summary/Direction: The BDCP project proponents, including DWR, will direct the relevant contractors to perform these when existing roads are heavily used for construction traffic.</p>	<p>The lead agencies, will direct the contractors to perform these actions when existing roads are heavily used for construction traffic. This comment will be forwarded for inclusion in the traffic management plans. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.</p>
1606	49	<p>[From ATT 2:]</p> <p>Comment: 5</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Traffic Impact Study (115), Highway Operations, and Trip Generation -- Provide an analysis of all ingress/egress points to the project on the SHS during construction, operations, and maintenance. Analysis should also include nearby intersections to the SHS sections impacted.</p> <p>Comment Source: District 4</p> <p>Category: Additional analyses</p>	<p>Roadway segments studied in the public draft EIR/S are inclusive of freeway entrances/exits that are likely to be utilized for construction-related activities and affected or utilized by personnel involved in maintenance and operation of the facilities following construction. The analysis has not been specifically broken out into these ingress/egress points, but if there are areas of specific interest, DWR engineers and the technical specialists are available to go over the results from these specific points. An intersection-level analysis was not performed because sufficient information regarding construction traffic patterns is not available for this level of analysis and it would be speculative and potentially misleading to assign construction related traffic by turning movement.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Assigned to: ICF</p> <p>Summary/Direction: Roadway segments studied in the public draft EIR/EIS are inclusive of freeway entrances/exits that are likely to be utilized for construction-related activities and affected or utilized by personnel involved in maintenance and operation of the facilities following construction. The analysis has not been specifically broken out into these ingress/egress points, but if there are areas of specific interest, DWR engineers and the technical specialists are available to go over the results from these specific points. An intersection-level analysis was not performed because sufficient information regarding construction traffic patterns is not available for this level of analysis and it would be speculative and potentially misleading to assign construction related traffic by turning movement.</p>	
1606	50	<p>[From ATT 2:]</p> <p>Comment: 6</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Traffic Impact Study (11S), Highway Operations, and Trip Generation -- Please include an analysis for trip generation and impacts to the SHS for when the project is operational. The analysis needs to include maintenance impacts.</p> <p>Comment Source: District 4</p> <p>Category: Additional analyses</p> <p>Assigned to: ICF</p> <p>Summary/Direction: Impact TRANS-8 studies any impacts as a result of increased trip generation from the proposed alternative during operation and maintenance activities. Due to the assumptions shown in the chapter, a detailed trip generation study was not included in the Traffic Impact Study.</p>	<p>Impact TRANS-8 reviews any impacts as a result of increased trip generation from the proposed alternative during operation and maintenance activities. Due to the assumptions shown in the chapter, a detailed trip generation study was not included in the Traffic Impact Study.</p>
1606	51	<p>[From ATT 2:]</p> <p>Comment: 7</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Traffic Impact Study (11S), Highway Operations, and Trip Generation -- Expand the discussion on "concentrated" access during construction to include additional mitigation measures to prevent overloading at access locations contributing to significant impacts.</p> <p>Comment Source: District 4</p> <p>Category: Additional mitigation</p>	<p>Mitigation Measure TRANS-1b specifies that, where feasible, construction activities should be adjusted to fit within available roadway capacity. This measure will also help prevent overloading at "concentrated" access locations. Details will be determined during development of the traffic management plans. For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Section 4.3.15 of the RDEIR/SDEIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Assigned to: ICF</p> <p>Summary/Direction: Additional detail regarding measures to prevent overloading at access locations would most likely be included in the Traffic Management Plan and other proposed mitigation measures. This will be developed in greater detail as a part of the Mitigation Monitoring and Reporting Plan.</p>	
1606	52	<p>[From ATT 2:]</p> <p>Comment: 8</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Landscape Architecture -- What effects will there be to highway planting and irrigation systems during construction and operation of the project?</p> <p>Comment Source: District 4</p> <p>Category: Impacts</p> <p>Assigned to: ICF</p> <p>Summary/Direction: There may be disruption to portions of highway planting and irrigations systems that lie within the construction footprint of the proposed project as described in Chapter 17. However, revegetation of disturbed areas would occur as a part of the project in accordance with guidance given by DWR's WREM No. 30a, Architectural Motif, State Water Project, and through coordination with local agencies through an architectural review process. Please also review Mitigation Measures AES-1a through 1g.</p>	<p>There may be disruption to portions of highway planting and irrigations systems that lie within the construction footprint of the proposed project as described in Chapter 17. However, revegetation of disturbed areas would occur as a part of the project in accordance with guidance given by DWR's WREM No. 30a, Architectural Motif, State Water Project, and through coordination with local agencies through an architectural review process. Please also review Mitigation Measures AES-1a through 1g.</p>
1606	53	<p>[From ATT 2:]</p> <p>Comment: 9</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Landscape Architecture -- If there are to be any staging areas located within the state ROW, the locations and impacts need to be addressed in the environmental document and plan sets.</p> <p>Comment Source: District 4</p> <p>Category: Impacts</p> <p>Assigned to: ICF</p> <p>Summary/Direction: This analysis is broken out into various resource chapters as applicable. Each chapter fully examines the project's construction footprint and the areas impacted, including areas within the state ROW.</p>	<p>To the extent that implementation of any alternative would lead to significant environmental impacts, including those associated with construction staging, such impacts are described in individual resource chapters throughout the EIR/EIS, and would be minimized and mitigated to the degree feasible.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1606	54	<p>[From ATT 2:]</p> <p>Comment: 10</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: The permanent and temporary realigned SR 160 are discussed within this chapter, but no figures are included to reference showing the location of each proposed permanent and temporary realignment. Either include a figure within this chapter or reference figures in other chapters that show this information.</p> <p>Comment Source: District 3</p> <p>Category: Request figures</p> <p>Assigned to: ICF</p> <p>Summary/Direction: Permanent realignments are proposed at Intake locations. For visual simulations of SR160 realignments located near the proposed intake locations please see the Figures in Chapter 17 - Aesthetic and Visual Resources in the BDCP Public Draft EIR/EIS. Figure 3-19 also shows a conceptual aerial view of the proposed realignment of SR160.</p>	<p>Permanent realignments are proposed at Intake locations. For visual simulations of SR160 realignments located near the proposed intake locations please see the Figures in Chapter 17 - Aesthetic and Visual Resources in the BDCP Public Draft EIR/EIS. Figure 3-19 also shows a conceptual aerial view of the proposed realignment of SR160.</p>
1606	55	<p>[From ATT 2:]</p> <p>Comment: 11</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Throughout the document there are repeated examples of delayed mitigation because the proper impact studies have not been completed. The use of all mitigation measures referencing "good faith negotiations" need to be rewritten to identify the actual impacts on the facilities and specific remedies proposed. This is proposed as a project level EIR/EIS and lacks specificity in many areas where required. Should this really be a Program Level/Tier 1 document until which time adequate studies and quantifiable impacts can be determined?</p> <p>Comment Source: District 6</p> <p>Category: Mitigation</p> <p>Assigned to: Legal</p> <p>Summary/Direction: Specific identification of mitigation measures incorporating this language would aid the responding parties in addressing the concern raised here. Specific mitigation is included where feasible. However, design-level details will not be available for all impacts until after completion of the NEPA/CEQA analysis. In those situations the project proponents have committed to mitigation, including consulting with appropriate local, regional and state agencies to determine necessary mitigation based on final design</p>	<p>"The lead agencies acknowledge that construction truck traffic may impact California Department of Transportation (Caltrans) facilities. Therefore, Mitigation Measure TRANS-1c also seeks to work with affected jurisdictions to enhance capacity of congested roadway segments where construction traffic will substantially affect transportation facilities. However, some significant impacts may be unavoidable as discussed on page 19-122 of the Recirculated EIR Chapter 19, Transportation. The proponents are committed to minimizing and remedying the impacts of construction truck traffic.</p> <p>Please refer also to Master Response 2 regarding program versus project level analysis.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		impacts.	
1606	56	<p>[From ATT 2:]</p> <p>Comment: 12</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Transportation Permit -- Project work that requires movement of oversized or excessive load vehicles on state roadways, such as US 101, State Route (SR) 29, or SR 121 requires a transportation permit that is issued by Caltrans. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to the following address: Transportation Permits Office, 1823 - 14th Street, Sacramento, CA 95811-7119. See the following website link for more information: <a href="http://www.dot.ca.gov/hq/traffops/permits/">http://www.dot.ca.gov/hq/traffops/permits/</a></p> <p>Comment Source: District 4</p> <p>Category: Permit</p> <p>Assigned to: DES</p> <p>Summary/Direction: DWR acknowledges that transportation permits will be required and will forward the links and information from this comment to the appropriate BDCP implementation and permitting staff.</p>	<p>The comment explains the procedure for obtaining a transportation permit from Caltrans. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p> <p>DWR acknowledges that transportation permits will be required and will forward the links and information from this comment to the appropriate BDCP implementation and permitting staff.</p>
1606	57	<p>[From ATT 2:]</p> <p>Comment: 13</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: Encroachment Permit -- Any work or traffic control that encroaches onto the state ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating the state ROW must be submitted to: Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information: <a href="http://www.dot.ca.gov/hq/traffops/developserv/permits/">http://www.dot.ca.gov/hq/traffops/developserv/permits/</a></p> <p>Comment Source: District 4</p> <p>Category: Permit</p> <p>Assigned to: DES</p> <p>Summary/Direction: DWR's [Division of Environmental Services] acknowledges that encroachment permits and encroachment permit applications will be required and will</p>	<p>Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. For more information regarding permitting please see Master Response 45.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		forward the links and information from this comment to the appropriate BDCP implementation and permitting staff.	
1606	58	<p>[From ATT 2:]</p> <p>Comment: 14</p> <p>Page: General</p> <p>Line:</p> <p>Caltrans Comment: The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document.</p> <p>Comment Source: District 4</p> <p>Category: Mitigation</p> <p>Assigned to: Legal</p> <p>Summary/Direction: Please see BDCP Chapter 8 -- Implementation Costs and Funding Sources and BDCP Appendix 8.A.6-EIR/EIS Mitigation Measures for detail regarding contribution and financing responsibilities related to proposed mitigation measures. The Mitigation Monitoring and Report Plan continues to be developed and finalized and will be included in the Final BDCP EIR/EIS. This comment has been forwarded to the appropriate BDCP staff for consideration during finalization of the Plan.</p>	Please see Master Response 5 regarding the estimated cost and the adequacy of the funding strategy for mitigation measures related to impacts to the covered species. The EIR/EIS is not required to describe the cost of other mitigation measures.
1606	59	<p>[From ATT 2:]</p> <p>Comment: 15</p> <p>Page: 19-53</p> <p>Line: 34</p> <p>Caltrans Comment: Mitigation Measures -- Explain how Mitigation Measure Trans-1b will be enforced.</p> <p>Comment Source: District 4</p> <p>Category: Explain</p> <p>Assigned to: ICF</p> <p>Summary/Direction: Contractors will be required to submit proposals as part of bid specifications demonstrating a process for determining how the hours of construction can feasibly be limited to avoid operational deficiencies on identified roadway segments as specified in Table 19-9.</p>	Contractors will be required to submit proposals as part of bid specifications demonstrating a process for determining how the hours of construction can feasibly be limited to avoid operational deficiencies on identified roadway segments as specified in Table 19-9.
1606	60	[From ATT 2:]	See Master Response 22, Mitigation, Environmental Commitments, Avoidance and Minimization Measures, and Alternative-Specific Environmental Commitments. The commenter suggests that the Lead Agencies

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Comment: 16</p> <p>Page: 19-69</p> <p>Line: 7-10</p> <p>Caltrans Comment: This is delayed mitigation and not acceptable under CEQA. Mitigation should not be conditional. BDCP proponents must come to an agreement with Caltrans on impacts and must do their best to minimize and mitigate before claiming the impacts to be significant and unavoidable.</p> <p>Comment Source: District 6</p> <p>Category: Mitigation</p> <p>Assigned to: Legal</p> <p>Summary/Direction: The BDCP proponents are not relying on these mitigation measures for the purpose of reducing the impact to a less-than-significant level, as such there is no delayed mitigation. The BDCP proponents have committed as detailed in Mitigation Measures TRANS 2-a, TRANS 2-b and TRANS 2-c, to minimize and mitigate these impacts to a less than significant level where feasible.</p>	<p>should reach an agreement with Caltrans before they can call the impact at issue here significant and unavoidable. But for this to have happened, agreement would have had to be reached prior to release of the Draft EIR or at least prior to project approval. At the time the DEIR/EIS was released, the Lead Agencies of course had not yet approved any project alternative, so it would have been premature to begin taking concrete steps to implement any one of them. Notably, the actions contemplated by Mitigation Measure TRANS-1c will require physical alteration of the environment, which requires some sort of CEQA compliance before implementation. (See <i>Save Tara v. City of West Hollywood</i> (2008) 45 Cal.4th 116, 132-139 [public agencies in California should not commit themselves to courses of action foreseeably affecting the environment without first complying with CEQA].) The reason the measure calls for agreements with other agencies is that the Lead Agencies cannot implement the steps called for without the cooperation of such other agencies. The lawfulness of this approach is evident from the fact that the California Supreme Court has upheld a mitigation measure taking a similar approach. In <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i> (2013) 57 Cal.4th 439, 465-466, the Court upheld a measure requiring the project proponent – after project approval – to work with local jurisdictions to establish a permit parking program. The project opponents attacked the measure as being “insufficiently enforceable because it depends on the cooperation of municipal agencies having jurisdiction over parking in the vicinity.” The Court disagreed, explaining that such an arrangement was permissible under CEQA. The Court was not troubled by the fact that such arrangements had not been finalized prior to project approval.</p>
1606	61	<p>[From ATT 2:]</p> <p>Comment: 17</p> <p>Page: 19-69</p> <p>Line: 16-17</p> <p>Caltrans Comment: How do you exacerbate unacceptable pavement conditions to below acceptable thresholds?</p> <p>Comment Source: District 6</p> <p>Category: clarify</p> <p>Assigned to: ICF</p> <p>Summary/Direction: The thresholds referenced here are LOS thresholds (see Table 19-7) which would be impacted should unacceptable pavement conditions be exacerbated by construction activity.</p>	<p>The lead agencies understand that construction traffic may especially degrade pavement on roadway segments that are already experiencing unacceptable conditions. Mitigation Measure TRANS-2c on page 19-69 of the Draft EIR/EIS is intended to ensure that construction activities will not worsen pavement conditions relative to Existing Conditions. For some segments, the share of the cost born by the project will be to return the pavement to its condition before the project. Ideally this contribution would only be a portion of a larger effort by the jurisdiction to improve the condition of the segment that was deficient with or without the proposed project.</p>
1606	62	<p>[From ATT 2:]</p> <p>Comment: 18</p> <p>Page: 19-69</p> <p>Line: 26</p> <p>Caltrans Comment: Mitigation Measures -- Explain how Mitigation Measure Trans-2a will be</p>	<p>Similar to Mitigation Measure Trans 1a, Contractors will be required to submit proposals as part of bid specifications that include prohibitions against construction traffic using roadway segments with pavement conditions below the thresholds identified. Implementation of this measure would prohibit all construction traffic on the physically deficient roadway segments listed in Table 19-10, if feasible.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>enforced.</p> <p>Comment Source: District 4</p> <p>Category: clarify</p> <p>Assigned to: ICF</p> <p>Summary/Direction: Similar to Mitigation Measure Trans 1a, Contractors will be required to submit proposals as part of bid specifications that include prohibitions against construction traffic using roadway segments with pavement conditions below the thresholds identified. Implementation of this measure would prohibit all construction traffic on the physically deficient roadway segments listed in Table 19-10, if feasible.</p>	
1606	63	<p>[From ATT 2:]</p> <p>Comment: 19</p> <p>Page: 19-70</p> <p>Line: 12-15</p> <p>Caltrans Comment: Good faith negotiations are only part of the requirements under CEQA and NEPA to avoid, minimize, and finally mitigate. There is no release of liability for mitigation simply because the proponent "feels" they have negotiated in "good faith" but could not reach an agreement.</p> <p>Comment Source: District 6</p> <p>Category: Mitigation</p> <p>Assigned to: Legal</p> <p>Summary/Direction: The BDCP proponents are committed to mitigating impacts to pavement conditions to the extent feasible as stated in Mitigation Measure TRANS 2-c. However, the BDCP proponents recognize some of these measures may not be feasible and as such recognize these impacts as significant for the purposes of this EIR/EIS.</p>	<p>See Master Response 22, Mitigation, Environmental Commitments, Avoidance and Minimization Measures, and Alternative-Specific Environmental Commitments and Responses to Comments 1606-60 and 1785-148. The lead agencies have every intention of working closely with Caltrans to reach a fair and mutually acceptable agreement.</p>
1606	64	<p>[From ATT 2:]</p> <p>Comment: 20</p> <p>Page: 19-81</p> <p>Line: 6</p> <p>Caltrans Comment: "Policies" is misspelled as "polices". This misspelling occurs in many other sections of Chapter 19. Please do a global correction.</p> <p>Comment Source: District 3</p> <p>Category: Editorial</p>	<p>Misspellings of the word "policies" have been corrected throughout Chapter 19, Transportation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Assigned to: ICF  Summary/Direction: We could not locate this word at the location identified. Other references to 'polices' will be corrected prior to the final draft of the EIR/EIS.	
1606	65	[From ATT 2:]  Comment: 21  Page: 20-45  Line:  Caltrans Comment: Impact UT-5: This section does not describe where the existing levee material under SR 160 will be disposed or re-used. It also does not describe where the material from the temporary SR 160 locations will be disposed once the re-aligned SR 160 is open to traffic.  Comment Source: District 3  Category: provide information  Assigned to: ICF  Summary/Direction: Realigning SR 160 (permanent facility) at the proposed intake sites involves widening of existing levee sections. Therefore, the need for removal and disposal of existing levee materials would be minimal. The current plan for the temporary SR 160 is to leave the detour road in place once the permanent re-aligned facility is opened to traffic.	The need for removal and disposal of existing levee material would be minimal and would be accounted for in the estimates of solid waste disposal. Of the solid waste facilities in the Plan Area counties, there are 30 active facilities that can handle solid waste, including 11 solid waste landfills with a remaining permitted capacity of well over 300 million tons, and 18 large volume transfer/processing facilities (see Appendix 20A, Table 20A-6 for a listing of each facility's name, location, permitted capacity, remaining capacity, maximum permitted daily throughput, and proximity to the statutory Delta). Implementation of BMP 13 (Appendix 3B, Environmental Commitments) would require development of a project specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste.  Please refer to the Mapbook Volume Figure M3-4 Modified Pipeline/Tunnel Alignment (Alternatives 4) for updated RTM Areas.
1606	66	[From ATT 2:]  Comment: 22  Page: 20-52  Line:  Caltrans Comment: Impact UT-7, Public Services: Please describe the impact of the temporary SR 160 on emergency services (law enforcement, fire protection, and emergency responders). Include mitigation measures, if necessary.  Comment Source: District 3  Category: provide information  Assigned to: ICF  Summary/Direction: Impacts to emergency services resulting from roadway changes are addressed in Chapter 19 of the BDCP EIR/EIS. See Table 19-11 for a list of emergency routes identified within the Plan Area. See Mitigation Measure TRANS 1-C.	Rerouting of SR 160 is not anticipated to affect emergency services or access in any way because normal roadway access would be maintained throughout the construction period in coordination with Caltrans and its requirements. Impacts to emergency services resulting from roadway changes are addressed in Chapter 19, Transportation, of this EIR/EIS. See Table 19-11 for a list of emergency routes identified within the Plan Area and Mitigation Measures TRANS-1a through 1c for mitigation measures to reduce congestion due to construction.
1606	67	[From ATT 2:]	The 2010 ISA that the commenter refers to was reviewed. However, as with the May 2009 ISA, the conveyance alignments locations "studied" at the time of the ISA have changed over the 4 to 5 years since

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Comment: 23</p> <p>Page:</p> <p>Line:</p> <p>Caltrans Comment: Include the information from the October 26, 2010 ISA completed for the BDCP, specifically regarding an aerially deposited lead (ADL) site investigation, standard specifications for stripe removal and disposal, the wooden posts of metal beam guard rail, and a Hazardous Materials Disclosure Document. A copy of the ISA is attached to this comment form.</p> <p>Comment Source: District 3</p> <p>Category: provide information</p> <p>Assigned to: ICF</p> <p>Summary/Direction: The May 2009 Phase I Initial Site Assessment was incorporated in Chapter 24, Hazards and Hazardous Materials.</p>	<p>these ISAs were originally completed. Therefore, once a BDCP conveyance alternative is chosen, a conveyance-alignment-specific (i.e., site-specific) Phase 1 ISA will be performed prior to construction. A final determination of whether a site constitutes a Recognized Environmental Condition will be made later in the process, when a corridor-specific ISA is performed that includes more detailed site-specific ASTM-compliant Phase I investigation.</p>
1607	1	<p>Overall, sustainability and environmental stewardship are key priorities for California State Transportation Agency (CalSTA) and its departments, as we address the inter-related issues of transportation, land use, and the environment. In particular, CalSTA is involved in these issues as a member of the Delta Protection Commission. (Pub. Resources Code, [Section] 29735, subd.(g).)</p> <p>CalSTA supports the Plan, which represents a comprehensive conservation strategy for the Sacramento-San Joaquin Delta to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. CalSTA looks forward to working with the Department of Water Resources and other agencies as this important project progresses</p>	<p>The preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. Master Response 5 further details the proposed governance structure and implementation for the project. The environmental documentation and project approval will be acted on by the decision makers from each lead agency at the conclusion of the CEQA and NEPA processes.</p>
1608	1	<p>BDCP comments prepared by Congressman John Garamendi.</p> <p>The range of alternatives evaluated for the Bay Delta Conservation Plan (BDCP) violate federal and state law and fail to adequately capture the variety of options that exist to meet the co-equal goals of water supply reliability and ecosystem restoration in the Delta. Fifteen different alternatives, all largely similar, are provided through the course of thousands of pages of documents, but none of them consider different solutions to addressing California's water needs. While experts will be able to point out a myriad of other short-comings to the BDCP, I will focus my comments on the need for a more diverse range of alternatives to be considered</p>	<p>This comment addresses Alternative 4 (known as the BDCP). Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. Please see Master Response 5 for additional information on the BDCP.</p> <p>Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage.</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>For more information regarding demand management please see Master Response 6.</p>
1608	2	<p>Under the National Environmental Policy Act (NEPA), a range of alternatives that would meet the project's purpose and need must be evaluated. The Council on Environmental Quality (CEQ) has provided guidance on what this "range of alternatives" means as Environmental Impact Statements (EIS) are developed under NEPA:</p> <p>The phrase "range of alternatives" refers to the alternatives discussed in environmental documents. It includes all reasonable alternatives, which must be rigorously explored and objectively evaluated.... Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. Counsel on Environmental Quality, Guidance document "NEPA Forty Most Asked Questions"</p> <p>This guidance is clear that alternatives must represent a wide range of options that can be rigorously explored and objectively evaluated. The draft EIS fails to meet this requirement in several ways. First, it fails to provide a wide range of options that meet the purpose and need of the proposed action. The stated planning goals for the BDCP are to restore ecological functions of the Sacramento-San Joaquin Delta and improve water supply reliability in the state of California. Alternatives to meet these needs should include not only a conveyance facility, but also other actions and water projects that could be pursued to achieve water reliability. The alternatives in the draft EIS fall drastically short in this regard. Each of the fifteen alternatives includes the same two elements: a conveyance facility and habitat restoration. There is no discussion of water conservation measures or recycling projects or increasing storage capacity, all of which could be used to support water reliability.</p> <p>Next, the draft EIS fails to rigorously explore the alternatives because the alternatives are inadequate. Building massive tunnels through the Delta is not the only option for creating water reliability, and there are plenty of other ideas out there for how reliability could be achieved. If the range of alternatives identified do not include all options that could reasonably meet the purpose and need for the BDCP, then a rigorous review is impossible to achieve.</p> <p>Finally, reasonable alternatives are those that are practical and feasible from a technical and economic standpoint, not just those that are desirable for the applicant. Proponents of the BDCP have one goal in mind -- building tunnels to move water from the north to the south. These blinders have limited the scope of this project and the scope of alternatives put forth for analysis. For these reasons, this EIS violates federal law and fails to provide the required components for an EIS under NEPA.</p>	<p>This comment addresses Alternative 4 (known as the BDCP).</p> <p>The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water timing under the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p> <p>It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage.</p> <p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA.</p> <p>Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4.</p> <p>For more information regarding purpose and need of the proposed project, please see Master Response 3.</p>
1608	3	<p>State Law:</p> <p>The current draft EIS/EIR violates state laws governing the development of the project. The California Environmental Quality Act (CEQA) applies to state projects which can be defined as "an activity undertaken by a public agency or a private activity which must</p>	<p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A thoroughly explains</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>receive some discretionary approval from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment." Since building tunnels 40-feet wide and 40-feet long through the Delta will directly cause physical change, the state has prepared a Draft Environmental Impact Report (EIR) to comply with CEQA. However, draft EIRs must provide feasible alternatives or mitigation measures that could substantially lessen the significant environmental effects of the proposed project and this is where the state has failed. As previously mentioned, the alternatives offered in the draft EIR are not actual alternatives to the proposed project, they merely offer different sizes of conveyance systems without looking at alternatives that would actually lessen the environmental impact. Building tunnels, no matter what size, will have a major environmental impact. To comply with CEQA, the project proponents need to offer alternatives that would provide a reliable water supply through a variety of methods that extend beyond building a new conveyance system.</p>	<p>why various proposals were not analyzed in the EIR/EIS.</p> <p>Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage.</p> <p>The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p>
1608	4	<p>In 2009, the Sacramento-San Joaquin Delta Reform Act became state law and mandated coequal goals for the Sacramento-San Joaquin Delta. These two goals are to provide a more reliable water supply for California and to protect, restore and enhance the Delta ecosystem. The Delta Stewardship Council (DSC) was created through the legislation and charged with the mission of developing and implementing a Delta Plan to achieve these goals. Rather than allowing the Delta Stewardship Council to complete its work in developing a Delta Plan, a group of independent stakeholders rushed ahead with the BDCP in an effort to find an easier way to export water from the Delta to the South under the guise of meeting the coequal goals. However, this narrow focus clearly fails to comply with the state law which states:</p> <p>Providing a more reliable water supply for the state involves implementation of water use efficiency and conservation projects, wastewater reclamation projects, desalination, and new improved infrastructure, including water storage and Delta conveyance facilities. (CA Water Code, Division 35, Section 85004(b))</p> <p>A conveyance system is only one element to achieving water reliability, and any plan that is put into place should encompass the entire list above. Some may argue that this is just the first step to achieving reliability, but that is the wrong approach. The Delta Reform Act goes on to discuss the need to reduce reliance on the Delta:</p> <p>The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts" (CA Water Code, Division 35, Section 85021)</p> <p>If we are going to reduce reliance on the Delta, a conveyance facility is not the first place we should start in developing a reliable water system, it is the last.</p> <p>As a result, the BDCP as it stands does not meet the state's mandated goals and fails to offer any alternatives that even come close to meeting them. The only thing the BDCP does is to provide a conveyance facility that will potentially harm the Delta more than help it while</p>	<p>The BDCP/California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).</p> <p>For more information regarding demand management please see Master Response 6.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		providing no reliable water supply.	
1608	5	<p>If the BDCP were truly committed to achieving the state's coequal goals, it would analyze a variety of options to help meet them. Just as the Delta Stewardship Council's Delta Plan, the Department of Water Resources' California Water Action Plan, Congressman John Garamendi's Water Plan for All of California, and the Natural Resources Defense Council's Portfolio-Based BDCP Conceptual Alternative consider a wide range of actions that could be taken to provide water reliability, so should the BDCP consider actions beyond a new pumping facility and large underground tunnels. Each of the plans listed above discuss water conservation, recycling or desalination, and the creation of more storage as the means to achieving a reliable water supply. These elements are vital to our water future and by leaving them out of the BDCP's scope and planning, we are failing seek out the most economical and environmental option for our state and the Delta.</p>	<p>Please see Response to Comment 1608-1.</p> <p>For more information regarding water demand management and purpose and need please see Master Responses 6 and 3, respectively.</p>
1608	6	<p>Congressman John Garamendi: A Water Plan for All California:</p> <p>A Water Plan for All California was drafted to address the two co-equal goals of the Delta Reform Act, water reliability and Delta protection, and to provide an adequate alternative to the Bay Delta Conservation Plan as required under both NEPA and CEQA. Reliability is achieved by creating new water with agricultural, urban, and industrial water conservation; underground and surface storage; better management of Sierra and Siskiyou mountain watersheds; and improved Delta levees paired with a small 3,000 cfs conveyance facility in the Delta.</p> <p>We need to think in a comprehensive way about water in California. The Bay Delta Conservation Plan (BDCP) [endnote i: California, Department of Water Resources and Natural Resources Agency, The Bay Delta Conservation Plan Draft Chapters, March 2013 &lt;<a href="http://baydeltaconservationplan.com/Library/DocumentsLandingPage/BDCPDocuments.aspx">http://baydeltaconservationplan.com/Library/DocumentsLandingPage/BDCPDocuments.aspx</a>&gt;] is an outdated and destructive plumbing system. It does not create any new water nor does it provide the water and the ecological protection that the Golden State must have. California and the federal government must set aside this big, expensive, destructive plumbing plan and immediately move forward with a comprehensive approach that includes:</p> <ol style="list-style-type: none"> <li>1. Conservation,</li> <li>2. Recycling,</li> <li>3. The creation of new storage systems,</li> <li>4. Fix the Delta - right sized conveyance, levee improvements, and habitat restoration,</li> <li>5. Science driven process,</li> <li>6. Protection of existing water rights.</li> </ol> <p>This combination of projects constitutes a comprehensive water plan for the state and a viable alternative that should be evaluated. If California does all of these, we will create new water supplies and better use the resources we already have.</p>	<p>Please see Response to Comment 1608-1.</p> <p>For more information regarding water rights, please refer to Master Response, Water Rights.</p>
1608	7	Conservation:	Please see Response to Comment 1608-1.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The quickest and cheapest source of new water is to stretch our current supplies by conserving what we have. Californians have been at this for years in our cities, in our industries, on the farm, and in our homes. We have engaged in serious water conservation, yet more can and should be done everywhere.</p> <p>There are many conservation strategies. One conservation strategy is to use devices that measure the moisture in the soil to provide real time monitoring of the exact amount of water needed for ideal growing conditions. These devices are connected to a computer that automatically turns on just the right amount of water. These systems are in use and conserve at least ten percent with a financial payback in less than one year. If they were deployed widely perhaps at least 1 percent of the 30 million acre feet of water consumed by agriculture could be saved each year (300,000 acre feet) [endnote ii: PureSense: Real Time Irrigation Management, New1 Technologies to Enhance .Agricultural Water Management, March 2013 &lt;<a href="http://www.puresense.com/">http://www.puresense.com/</a>&gt;.]</p> <p>All of us are going to do a lot more water conservation, not just the agriculture community. The water conservation mandate set by the state is a 20 percent reduction per capita by 2020 which equals 1,600,000 acre feet. [endnote iii: California, State Water Resources Control Board, 20X2020 Agency Team Questions and Answers, 2 June 2008, &lt;<a href="http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/docs/questions_answers.pdf">http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/docs/questions_answers.pdf</a>&gt;.] In a very real way, conservation can create new water that was not previously available for use. To be on the conservative side, let us assume that just one quarter of the State's goal could be obtained in the next decade, thereby adding 400,000 acre feet of new water to our supplies each year.</p>	
1608	8	<p>Recycling:</p> <p>Can you name the fifth biggest river on the west coast of the Western Hemisphere? It's the water that flows out of the sanitation plants in Southern California and is dumped into the Pacific Ocean.</p> <p>Why would any sane government take water from the Sacramento River, pump it 500 miles south, lift it 5,000 feet in the air, clean it, use it once, clean it to a higher standard than the day it arrives in Southern California, then dump it in the ocean? California does just this as it discharges over 3.5 million acre feet of water to the ocean each year, much of which could be reused.</p> <p>We need to think seriously about recycling, not just in Southern California, but everywhere. The State of California currently recycles approximately 650,000 acre feet of water each year and has set a water recycling goal of 1.5 million acre feet of new water in California by 2020, and 2.5 million acre feet by 2030. [endnote iv: California, Department of Water Resources, California Water Plan Update 2009, Integrated Water Management Bulletin 160-09, Vol. 2, Chapter 11, 2009 &lt;<a href="http://www.waterplan.water.ca.gov/cwpu2009/index.cfm">http://www.waterplan.water.ca.gov/cwpu2009/index.cfm</a>&gt;.] While achievable, WaterReuse California estimates this goal cannot be achieved without State regulatory changes to expand the types of recycling available that rely on existing technologies. [endnote v: WaterReuse Research, Meeting California's Water Need and Goals through an Unprecedented Initiative: Advancing Direct Potable Reuse, Capitol Hill briefing materials, March 2013.</p> <p>California, Department of Water Resources, California Water Plan Update 2009, Integrated</p>	<p>The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be roughly the same to average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline.</p> <p>Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage.</p> <p>Please see Master Response 4 for discussion of the scope of the proposed project and alternatives (such as desalination or water storage) that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Water Management Bulletin 160-09, Vol. 2, Chapter 11, 2009 < <a href="http://www.waterplan.water.ca.gov/cwpu2009/index.cfm">http://www.waterplan.water.ca.gov/cwpu2009/index.cfm</a> >.]	
1608	9	<p>Another option is desalination of the ocean. This is feasible and used extensively throughout the world, however it is not a viable option for all communities. It costs about 40 percent more to desalinate sea water than to recycle water using current technology. However, technological advances are being pursued for both recycling and desalination that could lower the costs of both.</p> <p>In the next ten years, conservation and recycling in California can create approximately 2.2 million acre feet of new water to use each year, and that can increase to 3.2 million acre feet in twenty years. This is new water that is not available today because it is wasted or pumped out to sea. It can be developed at a reasonable cost when compared to all other alternatives that might be out there. Conservation and recycling are steps one and two in a comprehensive water program for California.</p>	<p>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.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>See Master Response 7 for a more detailed discussion of various desalination projects under consideration and in development at this time.</p>
1608	10	When coupled with recycling, the underground aquifers in Southern California are another key to our water future. The underground aquifers of the Santa Ana River in Orange County, the San Fernando Basin, Chino Basin, San Bernardino, San Gabriel Basin, and others have a combined capacity larger than Shasta Reservoir, the largest man made reservoir in the state. Today, some recycled water is put into the underground water basins to be stored for those inevitably dry years. When needed, it is pumped out, used, cleaned and returned to storage. On a larger scale this recycling system could create as much as 2.5 million acre feet of new water, and thereby reduce the need for shifting Colorado River supplies and imports from the Sacramento River.	The proposed project is just one element of the state’s long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California’s water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).
1608	11	Surface and underground storage should be used in a conjunctive water management program. Use the rivers when there is lots of water and use the reservoirs when there is little. Another way to describe this strategy is "big gulp" and "little sips." When there are low flows in the Delta the system would take a little sip. When there is excessive water in the Delta, the system would take a big gulp, but there must be some place to put that water when the big gulp is taken. Therefore, the surface and sub-surface reservoirs south of the Delta become an essential element in a California water plan.	<p>It is recognized in Chapter 5, Water Supply, and Chapter 7, Groundwater, of the Draft EIR/EIS that deliveries of SWP from the Delta supports ongoing conjunctive use programs in southern California. Delta exports in many of the alternatives are reduced in the summer months, especially of drier water years; and increased in winter months.</p> <p>The California Water Action Plan recognizes that all Californians have a stake in the future of our state’s water resources, and that a series of actions are needed to comprehensively address the water issues before us. The five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species — all amid the uncertainty of drought and climate change. For more information regarding future developments of the California Action Water Plan please follow <a href="http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf">http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf</a>. Future committees for the Proposed Project implementation may provide future opportunities for innovative input as well.</p> <p>The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: <a href="http://www.waterplan.water.ca.gov/">http://www.waterplan.water.ca.gov/</a>.</p> <p>Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS. Appendix 1B, Water Storage, EIR/EIS, describes the potential for additional water storage and Appendix 1C, Water Demand Management, EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Agencies recognize that they are important tools in managing California's water resources.</p> <p>Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management and Master Response 37 regarding water storage.</p>
1608	12	<p>Water storage north of the Delta is also important, and three proposals are on the books today. An off stream reservoir at Sites, located west of Williams, has great promise for storage and for creating greater flexibility in managing the Sacramento River for salmon runs, water demand, and Delta outflow. This reservoir can deliver 500,000 acre feet of annual yield and the additional flexibility that it offers can under some scenarios save another 500,000 acre feet of water that would otherwise be released into the river systems. [endnote vi: 'Sites Project Joint Powers Authority, North-of-the-Delta Off Stream Storage Fact Sheet,&lt;www.sitesjpa.net&gt;.] Raising Shasta Dam is also possible, as is better conjunctive management of the many aquifers in the Sacramento Valley. State and federal agencies have already commenced studies for these projects. A quick completion of these studies is essential.</p>	<p>While water storage is a critically important tool for managing California's water resources, it is not a topic that must be addressed in the EIR/EIS for the proposed project. This is because the proposed project does not, and need not, propose storage as a project component. Although the physical facilities contemplated by the proposed project, once up and running, would be part of an overall statewide water system of which new storage could someday also be a part, the proposed project is a stand-alone project for purposes of CEQA and NEPA, just as future storage projects would be. Appendix 1B, Water Storage, of the 2013 Public Draft EIR/EIS, describes the potential for additional water storage.</p> <p>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.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>Please see Master Response 37 regarding water storage.</p>
1608	13	<p>Fix the Sacramento-San Joaquin Delta:</p> <p>The current plan for the BDCP is a dual use facility with the main focus on the twin tunnels with a capacity of 15,000 cubic feet per second, and the continued use of the Delta channels for moving water from the Sacramento and San Joaquin rivers to the Tracy pumps. This dual use system adds another layer of risk to the eco-system and agricultural economy of the Delta with the potential for the massive tunnels to suck the Delta dry from the north and from the south with the thirsty pumps. In scale, the cost and destructive potential of this project will rival the Three Gorges Dam on the Yangtze River in China. The twin tunnel proposal is a large scale, destructive project that does not create one gallon of new water for a thirsty California.</p> <p>The location of the intakes for the twin tunnels is in the heart of the rich farm lands of the northern Delta, near the small community of Courtland. Thousands of acres of valuable farmland essential to California agriculture production will be destroyed during construction of the project, and, following completion, a vast industrial zone of pumping stations, fish screens, reservoirs, and electrical stations will impede on one of California's great agricultural regions. Along the forty mile route of the twin tunnels the construction process will produce a total of 22 million cubic yards of tunnel muck. This combination of soil and conditioning agents will have to be stored and managed and the latest draft of the plan calls for storage areas along the tunnel ranging in size from 100 to 570 acres. The amount of muck extracted would be enough to cover 100 football fields to a height of roughly 100 feet, and in the end will destroy close to 1600 acres of farm land while disrupting domestic and agricultural water wells.</p>	<p>The commenter's opposition to the proposed project is acknowledged. The proposed BDCP aims to allow the federal and state water projects to deliver more reliable water supplies, in a way less harmful to fish.</p> <p>A description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4, and the Appendix 3A, Identification of Water Conveyance Alternatives, of the EIR/EIS.</p> <p>Please see Master Response 18 for more information regarding agricultural impact mitigation. Socioeconomic effects, including impacts on agricultural employment, are described in Chapter 16, Socioeconomics, of the EIR/EIS.</p> <p>Please see Master Response 12 regarding reusable tunnel material (RTM). The process for determining disposal, storage, and reuse of RTM is described in Appendix 3B, Environmental Commitments of the EIR/EIS.</p>
1608	14	<p>A solution for the Delta:</p> <p>Go forward carefully; start small; use science to evaluate each step; then proceed to the next step. Remember the Delta is a unique and precious environmental asset. We must take</p>	<p>Please see Master Response 4 regarding the range of alternatives selected.</p> <p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>care of it. A narrowly focused plumbing system like the BDCP will not achieve progress in creating a water supply sufficient for California's future. We must pursue a holistic, comprehensive approach that will achieve a bigger bang for our buck.</p> <p>First, reduce demand on the Delta with steps one, two and three: water conservation, recycling, and strategic use of storage facilities. Use the "Big Gulp, Little Sip" pumping strategy. Move forward with the flood plain and fresh and saltwater marsh habitat improvements. Repair and improve the key Delta levees. Evaluate the effect on the Delta as these projects come on line. Then, and only if necessary, proceed with a conveyance system that is much smaller and with a reduced capacity to destroy.</p> <p>A much smaller facility with a capacity of no more than 3,000 cubic feet per second (cfs) could be built to deliver water from the Sacramento River to the Tracy pumps. With the normal minimum flows in the Sacramento River above 15,000 cfs, a small 3,000 cfs facility could operate at least 300 days in most years, delivering approximately two million acre feet of water south to the pumps at Tracy where it would be pumped south to the new and expanded storage facilities.</p> <p>There are several alternative ways to build this smaller system. One alternative is found with a careful look at the Delta map which reveals that two-thirds of this Delta-friendly system is already built. Two miles from the State Capital is the Port of Sacramento and the shipping channel that ends 25 miles south near Rio Vista. From there it is thirteen miles to existing channels and the Tracy pumps. The federal government already owns the land along the river where an intake and fish screen could be built, allowing 3000 cfs of Sacramento River water to enter the channel and flow south to a shipping lock at the southern end of the channel. Then, pumps could deliver the water into a short 12-mile pipe beneath the Sacramento and San Joaquin Rivers and into the existing Delta channels that lead to the Tracy Pumps. The threatened Delta fish could be protected by sealing the channel from the Delta. Such a smaller facility is less costly than two 40-foot diameter, 40-mile-long tunnels that devastate large swaths of the Delta and put the entire Delta at risk.</p> <p>It is correct that this smaller facility like the twin tunnels is insufficient to quench the thirst of the Southern water contractors. This is where the southern reservoirs and the "Little Sip, Big Gulp" strategy comes into play. In normal water years there is sufficient water in the Delta to allow the pumps to take a big gulp of two million acre-feet of water. This amount together with the two million acre feet delivered through the 3,000 cfs facility and the new water developed from conservation and recycling efforts could add up to six million acre feet. This plan would create far more new water than will ever be available with the current BDCP plan, which in its current state creates nothing new, except new destruction.</p>	<p>carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the Draft EIR/EIS.</p>
1608	15	<p>Improve Delta levees:</p> <p>This small 3,000 cubic feet per second proposal and the current twin tunnel BDCP proposal envision the continued use of the existing Delta levee system as water conveyance channels for the delivery of water to the big pumps at Tracy. However, the BDCP has neither a plan nor funding for the maintenance of the levees that are crucial for their proposed water conveyance system. The Delta levees must be upgraded and maintained if water is to be transported through the Delta and if the Delta agriculture, infrastructure, ecology and people are to be protected.</p> <p>No sane homeowner would go fifty years without maintaining their plumbing system. For</p>	<p>Please see Chapter 2, FEIR/EIS, for the BDCP/CWF purpose and need, and Appendix 6A Sections 6A.2 and 6A.3 for discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the BDCP/CWF. Levees are an important public safety resource and the proposed project would not change levee policy or replace ongoing programs and grant projects aimed at facilitating and supporting levee improvements in or outside the Delta. It recognized that levee maintenance and safety in the Delta is an important issue for the residents of the Delta and for statewide interests.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>more than fifty years, the Bureau of Reclamation and the California Department of Water Resources have used the Delta levees as a plumbing system to deliver water from the Sacramento River to the Tracy pumps. Yet, they have spent virtually no money maintaining these critical levees, the failure of which could shut down water deliveries for an extended period of time. The Federal and State agencies have relied upon the local reclamation agencies to do the repairs, literally giving the exporters a free ride. When a levee does give way and an island is flooded, it is the local agency and federal and state governments that foot the bill to repair the levees, often at a much greater cost than would have been necessary with basic maintenance.</p> <p>Legislation is necessary to require that the Federal and State water contractors, who have for years, and will continue for even more years, depended upon the Delta levees for the delivery of water to their fields and cities, pay a part of the levee maintenance cost.</p>	
1608	16	<p>Habitat Restoration:</p> <p>The BDCP envisions restoring flood plains and the salt and freshwater marsh habitat of the Delta in an effort to restore the fisheries. However, a series of questions are raised: where to do it, how much to do, what type, at what cost and who is to pay for the restoration? Those who have created the ecological problem should pay for the restoration of the problem. All this will require careful attention to science, and a careful balance between competing goals. Current science indicates that no amount of habitat restoration can compensate for the damage done to fish from excessive water exports.</p>	<p>The preferred alternative, 4A, does not include any more restoration than what is required to mitigate for the effects of the alternative. As such, the project proponents will be responsible for implementing the restoration and other mitigation measures. The specific details about the restoration design and location are unknown, but the potential effects of the restoration are described for each alternative.</p>
1608	17	<p>Let science drive the process:</p> <p>The BDCP and any other proposal must be based and driven by quality science that measures and informs decisions. California and federal law require that the Delta aquatic and terrestrial ecosystems be protected. We must do so, not just because the laws demand it, but because our status as human beings on this planet demands that we pay attention and protect precious and rare ecosystems. Also, healthy ecosystems provide a valuable asset to our communities because healthy ecosystems help to ensure we have healthy water. If we let the ecosystems fall by the wayside, our water will get dirtier making it increasingly difficult and costly to clean it up enough to use. For all of these reasons, we must let science govern.</p> <p>The BDCP anticipates 50-year permits from state and federal agencies to allow incidental takes of endangered fish species. Once granted, the water exporters will have assurances that the project can take covered species and pump Delta water despite changes in the environment. To date, BDCP has not built in flexibility to address the inevitable changes that will occur and the damage that could be done if the plan does not account for climate change.</p> <p>We must also use science to understand our river basins in the age of climate change. Dams on California Rivers serve multiple purposes of water storage, flood protection, electric power generation, recreation, and environmental river flows. Current dam operations on California Rivers place flood protection as the first priority followed by water storage. The decisions to release water to create greater flood storage are based on the average river flows compiled from the last 60 years. Climate change and resulting river flow change is certain and one can only imagine how rare it will be for the historic average to</p>	<p>The BDCP alternatives presented in this final EIR/EIS include a number of mechanisms to ensure flexibility in the way conservation measures would be implemented including monitoring to judge the effectiveness of meeting biological goals and objectives, real time operations adjustments, the decision tree process to study a range of operational scenarios and implementation of an adaptive management and monitoring program. All of these mechanisms would take into consideration climate change uncertainty.</p> <p>The best available and practicable science will be applied to implementing the approved alternative.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>actually occur.</p> <p>We have the technology today to better understand what is happening, in real time, in every river basin in this state. Satellites and unmanned aircraft using infrared and ground sensing radar, together with terrestrial stations collecting soil conditions, snow temperature and moisture content coupled with telemetry will soon be deployed in the American River basin. Collecting this data and using it in real time to predict river flows allows for better operation of the dams so that additional flood storage capacity could be available by lowering the reservoir ahead of the storm or keeping water in the reservoir if a major storm is heading for a different river basin or if it is a cold snow storm. Using the best science can simultaneously deliver increased flood protection and greater water storage.</p>	
1608	18	<p>Protect water rights:</p> <p>Soon after gold was discovered in California, the miners discovered that water could be used to separate gold from gravel and soon after, the right to the water flowing in the rivers became as valuable as the gold. Today, water is California's gold. The classic water war in California is usually about one group attempting to take another group's water. It is reasonable to view the current BDCP conflict in this way: southern exporters taking water belonging to northern water right holders and water necessary for the aquatic river environment. Any water plan that ignores the prior and existing water rights is destined to be embroiled in a vicious and contracted water war. If a project is to be built, then existing rights must be honored.</p>	<p>The proposed project would not affect upstream water rights. It aims to allow the federal and state water projects to deliver more reliable water supplies, in a way less harmful to fish. The project does not increase the amount of water to which DWR holds water rights or for use as allowed under its contracts. The CALSIM II modeling performed for conveyance facility operations takes into account projected future demand for water supply in areas upstream of the Delta (as part of the future No Action baseline) prior to calculating Proposed Project diversion estimates to ensure that no area-of-origin protections or upstream water rights are affected by project conveyance facilities. Please see Appendix 5A of the FEIR/FEIS for additional modeling details.</p> <p>For more information regarding changes in delta exports please see Master Response 26.</p>
1608	19	<p>California and the federal government must evaluate adequate alternatives to the BDCP which must include a comprehensive water plan for California. The current proposal will fail to create water reliability through its limited scope and I urge the project proponents to consider additional alternatives. Creating new water is the best possible way to ensure California's water needs are met and the adopted project plan should include conservation, recycling, and storage among a variety of other items. This is the only way to expand the dwindling resource we currently have.</p>	<p>Please see Master Response 5 which provides additional information on the BDCP.</p>
1609	1	<p>This email transmits SolAgra's West Delta Intake Plan (WDIP) a viable alternative plan that, under both NEPA and CEQA, requires study. We believe this Plan is far superior to the studied Bay Delta Conservation Plan (BDCP) alternatives.</p> <p>Our plan employs proven technologies used in innovative ways to create 2.4 Million Acre-Feet of new fresh water per year that will be available irrespective of drought conditions in the State. This new fresh water will be produced and conveyed using renewable electrical energy produced by SolAgra's proposed Ryer Island solar power plant.</p> <p>In contrast to the BDCP, SolAgra's alternative project would allow the San Joaquin and Sacramento River water to flow completely through the Delta to the point immediately before the fresh water naturally blends with the salt water (brackish water) from Suisun Bay. We propose to capture the fresh river water just before it blends with brackish water and move that water from a pumping plant located on publically owned land on Sherman Island to Bethany Reservoir where it will begin its journey via the State Water Project through the California Aqueduct, as it has since 1960. During times of drought conditions, the reduced levels of fresh water that naturally flow toward Sherman Island in the San Joaquin and Sacramento Rivers will be augmented by desalinating the brackish water that naturally occurs near the southern end of Sherman Island. The combination of fresh and</p>	<p>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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project. As explained in Appendix 3A, the Lead Agencies, in developing the EIR/EIS alternatives, considered all of these options, including potential desalination, and explained why such potential alternatives were not carried forward for detailed analysis in the EIR/EIS. SolAgra's proposed West Delta Intake Plan (WDIP) is substantially similar to other proposals recommending the treatment of brackish or near-brackish water and the export of treated water from a location considerably downstream from the proposed North Delta diversion locations. The Lead Agencies have already considered and rejected such concepts for various reasons, including failure to achieve the project's purposes, as well as costs and technical challenges. Notably, moreover, any diversion location that today is just near the point where fresh water mixes with brackish water will be subject to sea level rise over the coming decades. Such locations will be dealing with purely brackish water at some point in the future, substantially increasing treatment costs.</p> <p>By being located further upstream on the Sacramento River, the new diversions included under the proposed project would help protect critical water supplies against the threats of sea level rise and</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>desalinated brackish water (that is available in virtually unlimited quantities) will provide larger quantities of cleaner, fresher water to Bethany Reservoir than has ever been historically provided via the State Water Project.</p> <p>SolAgra has reviewed the BDCP EIR/EIS that is currently proposed. The 40,000 page EIR/EIS document lists significant unmitigatable consequences. We believe our SolAgra West Delta Intake Plan would pose an environmentally and economically superior alternative.</p> <p>Please see the attached SolAgra Comment Letter to the BDCP EIR/EIS for additional details of the SolAgra West Delta Intake Plan.</p>	<p>earthquakes, among numerous environmental benefits. As explained in EIR/EIS Chapter 2, Project Objectives and Purpose and Need, and Master Response 3, Project Objectives and Purpose and Need, the project objectives include:</p> <ul style="list-style-type: none"> <li>To make physical improvements to the conveyance system in anticipation of rising sea levels and other reasonably foreseeable consequences of climate change.</li> <li>To make physical improvements to the conveyance system that will minimize the potential for public health and safety impacts resulting from a major earthquake that causes breaching of Delta levees and the inundation of brackish water into the areas in which the SWP and CVP pumping plants operate in the southern Delta.</li> </ul> <p>Locating new intakes in the western Delta at the mixing zone of high-salinity water and freshwater outflows, as proposed by the commenter, would not achieve these objectives.</p> <p>The Final EIR analyzes 18 project alternatives representing a reasonable range of alternatives for CEQA and NEPA purposes. For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p> <p>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 (BDCP) remains a potentially viable alternative and was carried forward in this RDEIR/SDEIS and Final EIR/EIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed and presented for public and agency review and comment in the RDEIR/SDEIS. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative analyzed in the RDEIR/SDEIS and Final EIR/EIS 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. For further responses to comments on the BDCP, please see Master Response 5 (BDCP).</p>
1609	2	<p>Comments on Draft Bay Delta Conservation Plan and Associated Draft Environmental Impact Report/Environmental Impact Statement:</p> <p>These comments are submitted in relation to the Bay Delta Conservation Plan Alternative 4 (BDCP) and associated draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Any project, and particularly a project of the magnitude proposed here, must fully consider alternatives to minimize take of endangered species and means to avoid these and other significant environmental impacts. To better accomplish the tasks for which the BDCP was designed, construction of water intakes in the west Delta should be considered. The SolAgra West Delta Intake Plan (WDIP), could be powered by 100% renewable resources from our locally proposed Ryer Island Solar Power Plant, and augmented by power from the existing nearby Rio Vista wind farms. This alternative would better preserve natural river flows and maintain water quality in the Delta while simultaneously supporting export water supply needs and minimizing or avoiding many of the significant environmental impacts of implementing the BDCP identified in the Draft BDCP and EIR/EIS. SolAgra would like to</p>	<p>Please see response to comment 1609-1. 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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p>

DEIRS Ltr#	Cmt#	Comment	Response
		discuss our proposed solution with the BDCP proponents.	
1609	3	<p>Why is SolAgra Interested in the Delta and the BDCP?</p> <p>SolAgra Corporation is a California Corporation that develops utility-scale renewable energy power plants. SolAgra holds a 40-year lease on 2,422 acres of Ryer Island that SolAgra intends to use for the development of a 720 MW solar energy production facility. This facility will pair sustainable agriculture beneath the solar arrays, using a patent-pending method of "solar double cropping" technology known as SolAgra Farming. This technology is currently being beta tested and peer reviewed by U.C. Davis, Plant Sciences Department under the auspices of Dr. Heiner Lieth. Dr. Lieth is a leading expert in this field and his team at U.C. Davis has already completed successful testing of this concept.</p>	Please see response to comment 1609-1. The comment provides useful and interesting information, but does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1609	4	The SolAgra project will also develop an energy storage system capable of storing up to 640 megawatts of electrical power that can be used to time-shift the power delivery to a time when normal solar power is not available due to lack of sunlight. SolAgra has secured the use of depleted natural gas wells beneath its leased land to provide necessary subterranean storage for its Compressed Air Energy Storage (CAES) System and other patent-pending energy storage technologies of its own design. SolAgra also has the right of first offer to purchase up to 6,202 acres on Ryer Island to expand the total electrical power production capability to 1,800 megawatts.	Please see response to comment 1609-1. The comment provides useful and interesting information, but does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1609	5	Since SolAgra's Ryer Island Solar Power Plant will also sustain agriculture beneath the solar arrays, the continued need for good quality irrigation water in sufficient quantities on Ryer Island is essential. The salinity barriers proposed by the Department of Water Resources (DWR) for Steamboat and Sutter Sloughs would devastate agricultural operations on Ryer Island. The potential that this high salinity level could continue, and be exacerbated due to the upstream diversions proposed by the new BDCP intakes on the Sacramento River is unacceptable to farming operations on Ryer Island and to many other rich agricultural areas of the Delta that rely on the Sacramento River to successfully produce crops for California and the nation.	The commenter's reference to the salinity barriers proposed by the Department of Water Resources (DWR) for Steamboat and Sutter Sloughs is to a separate drought emergency response measure, not an aspect or component of the BDCP (Alternative 4) or the new preferred alternative, Alternative 4A (California WaterFix). The Final EIR/EIS and supporting documentation analyzed the impacts of all project alternatives in Chapter 8, Water Quality. Under the new preferred alternative 4A, impacts on chloride concentrations resulting from facilities operations and maintenance (Impact WQ-7) will be less than significant; and effects on electrical conductivity concentrations resulting from facilities operations and maintenance (Impact WQ-11) will be less than significant with implementation of mitigation measures WQ-11, WQ-11e, and WQ-11f.
1609	6	<p>SolAgra has studied the EIR/EIS for the BDCP as well as the many comments that have been submitted to date. While we agree that the water problems that have plagued California for more than 100 years require changes, we are convinced that the BDCP is not a solution.</p> <p>Since the beginning of construction of the State Water Project (SWP) in the 1950s, California has been guilty of "serial engineering". This means undertaking solutions that are not completely thought-out, reasoning that "the end justifies the means" or "let's get the water flowing south and we'll worry about the consequences later." "Later" has now arrived and the consequences are dire. Each new engineering solution attempts to improve a disastrous condition created by the previous "solution." This is also the case with the currently proposed BDCP.</p> <p>Many critics of the BDCP have stated their concerns regarding the currently proposed BDCP and their disbelief at the scope and cost of the proposal -- both environmentally and fiscally. These comments allege that the current draft BDCP plan and EIR/EIS are inadequate and will require remedial research, re-coordination and recirculation prior to project approval. However, few alternatives to BDCP have been offered. The SolAgra approach provides an alternative that would better restore Sacramento River flow pathways and volumes, with significant resulting benefits to local residents, farmers, native fish species and other wildlife</p>	<p>This comment conveys the commenter's view of the history of the State Water Project since the 1950s, but raises no specific environmental issues to which a meaningful response can be provided.</p> <p>Please see response to comment 1609-1 for a response to the suggestion that the EIR/EIS has failed to study an adequate range of alternatives.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		in the Delta while continuing to meet export water supply needs for the rest of California.	
1609	7	<p>What exactly is SolAgra proposing?</p> <p>The SolAgra proposal calls for the fresh water of the Sacramento River to flow to near its natural endpoint, where it mixes with the brackish water flows between Sherman Island and Chipps Island near the Antioch Bridge. (See Exhibit 1.) This is the perfect location to capture significant quantities of fresh river water before it mixes with the inexhaustible supplies of sea water that arrive by tidal flow from San Francisco, San Pablo and Suisun Bays. By installing a blending/treatment plant that is capable of blending inflows from the Sacramento and San Joaquin rivers, with the brackish waters of Sherman Lake, and filtering/desalinating this "custom blended" brackish water from multiple intakes around Sherman Island; the treatment and desalination (using reverse osmosis and later a far more efficient graphene desalination technology) will easily provide the 2.4 million Acre-Feet/year of fresh water that is currently shipped through the SWP in a "good water year." This new, clean water that is created on Sherman Island will be pumped through a single, smaller tunnel that is 19 miles long (See Exhibit 2), versus the twin tunnels proposed by the BDCP that are each 38 miles long and are proposed to be over 40 feet in diameter! Since this new water will be fish-screened and pre-filtered at Sherman Island, it can completely bypass the Clifton Court Forebay and the Banks Pumping Plant for processing, and be pumped directly to Bethany Reservoir where it will begin its gravity flow into the California Aqueduct.</p> <p>By modularizing the pumping and desalination plants at Sherman Island, water taken directly from the Sacramento or San Joaquin Rivers that has not yet mixed with the brackish tidal flows, can be filtered (if necessary) and pumped directly into the tunnel for the journey to Bethany Reservoir. To augment the flow of fresh river water in years of limited river flow due to drought or other issues, the desalination plant adjacent to the pumping / filtration plant can be increased in volume operation to add desalinated water to make up for the limited fresh water that is coming down river. This separation of processing functions allows the efficiency of both processes to be operated at peak efficiency, while still accomplishing the end result of producing 2.4 Million acre-feet/year of fresh water for introduction into the SWP. This water can be added to water flows that are currently being pumped at the Banks pumping plant to equal or exceed the volume proposed by the BDCP.</p>	<p>The comment provides useful and interesting information, but does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>
1609	8	<p>This new approach to dual-conveyance means that existing operations of the CVP and SWP will continue as they operate today during normal rain years. In drought years, rather than continuing to pump 2.4 million acre-feet/year or more (per BDCP) and thereby decreasing the flow down the Sacramento River, thus allowing salinity levels to move up river -- as they are doing today -- we advocate that Banks Pumping Plant pump less water, thereby allowing more of the limited available fresh water to flow completely through the Sacramento &amp; San Joaquin Rivers to Sherman Island. There it will be picked up filtered and/or desalinated as necessary, combined with the Bay water that arrived from the west on flood tides and then pumped at a rate of 2.4 million acre-feet/year to Bethany Reservoir for introduction into the SWP. The combination of these conveyances and the introduction of 2.4 million acre-feet/year from Sherman Island provides as much (or more) than the up to 9,000 cfs (6.5 million acre-feet/year) that is proposed by the BDCP. The SolAgra West Delta Intake Plan alternative accomplishes that task without the environmental, economic and social impacts of the BDCP.</p> <p>During times of high river flow, the "big gulp" advocated by the BDCP can still be</p>	<p>Please see response to comment 1609-1. 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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>The proposed intakes would only be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards. Flow criteria will be applied month by month and according to water year type. More information on the ranges of water project diversions under the BDCP, based on water year types and specific flow criteria, can be found in BDCP, Chapter 3, Conservation Strategy. Monitoring for compliance with D-1641 requirements or any future requirements for SWP/CVP water supply operations would be conducted year-round in the future under the proposed project. Please see Chapter 3, Alternatives, in the Final EIR/EIS for additional discussion of the operational criteria for the various project alternatives.</p> <p>The Proposed Project proposes to stabilize water supplies, and exports could only increase under certain circumstances in which hydrological conditions result in availability of sufficient water and ecological</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>accomplished by pumping more through Banks and by using Sherman as a pumping plant (only), since no desalination will be required during times of high fresh water flows. This will obviously require Central Valley Project (CVP) water contractors to develop sufficient storage south of the Delta to provide reserves for lower precipitation years.</p>	<p>objectives are fully satisfied. It is projected that water deliveries from the federal and state water projects under the Proposed Project would be about the same as the average annual amount of water that would be diverted under the No Action Alternative (i.e. 2025 conditions without the Proposed Project). It is projected that Delta exports from the federal and state water projects would either remain similar or increase in wetter years and decrease in drier years under Alternative 4A as compared to exports under No Action Alternative (ELT) depending on the capability to divert water at the north Delta intakes during winter and spring months. The estimated changes in deliveries for 4A are provided in the RDEIR/SDEIS section 4.3.1 and Appendix A, Chapter 5, Water Supply. Although exports under the Proposed Project would be similar to the amount water exported in recent history, it would make the deliveries more predictable and reliable, while reducing other stressors on the ecological functions of the Delta.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p> <p>Please see Appendix 1B, Water Storage, in the Final EIR/EIS as well as Master Response 37, Storage, for more discussion why storage to be developed by agencies other than DWR has not been and need not be included as part of any of the project alternatives in the EIR/EIS analysis.</p>
1609	9	<p>By modularizing the pumping plant(s) at Sherman, we can pump fresh water directly into the tunnel that goes from Sherman Island to Bethany Reservoir, desalinate the incoming tidal brackish water from Sherman Lake and then pump that water into the tunnel. This selectivity increases the efficiency of the entire system by transferring the fresh water directly and desalinating only the brackish water. Desalinating brackish water is far more efficient than desalinating sea water, so the entire concept capitalizes on Sherman Island as the perfect location in the State to accomplish this task.</p> <p>Electrical power needed for the desalination and pumping of water can be provided by the SolAgra Solar Power Plant proposed for Ryer Island, without interrupting or impacting the electrical power balance in the State. The State's power balance is currently impacted by the permanent closing of the San Onofre Nuclear Generating Station. The newly created Ryer Island green solar power can be delivered to the adjacent Grand Island Substation and transmitted directly to Sherman Island via the existing Brighton-Grand Island 115KV power corridor. Unlike the BDCP-proposed project, no new power corridors must be created or power rights-of-way acquired. Additional power may also be obtained from the windfarms west of Rio Vista. That power can be transmitted via the Birds Landing/Contra Costa 230 KV transmission corridor that runs from the Montezuma Hills wind farms (west of Rio Vista) directly through Sherman Island. There would be no need to create new power corridors, obtain new power rights- of-way or otherwise increase environmental impacts from construction of new transmission corridors.</p>	<p>Please see response to comment 1609-1. As previously noted, the Preferred Project is now Alternative 4A. Impact analyses of the Preferred Project and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS.</p> <p>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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p> <p>For discussion of the project alternatives' respective impacts on energy consumption, please see Chapter 21, Energy.</p>
1609	10	<p>Why should BDCP proponents consider the SolAgra alternative?</p> <p>The SolAgra approach solves all of the major problems associated with the creation and transmission of water via the SWP without incurring many of the un-mitigatable consequences and expenses in the North Delta alternative that is enumerated in the EIR/EIS for the BDCP. We believe the SolAgra West Delta Intake Plan alternative could accomplish the task for less than half the projected cost and in less than half the time of the BDCP.</p> <p>Rather than juggling and moving existing water from place-to-place via a bureaucratic scheme, the SolAgra proposal would create 2.4 million acre-feet/ year of new, fresh water for the SWP that California has never had previously. This new water would be created each</p>	<p>Please see response to comment 1609-1, above, for discussion of why the Final EIR/EIS has analyzed a reasonable range of 18 project alternatives.</p> <p>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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>and every year -- irrespective of droughts, tidal flows, sea levels or other weather conditions or anomalies. Under the SolAgra proposal, the CVP conveyance through the existing system can remain in place, avoiding unaffordable water rate increases that would make commercial agriculture less fiscally sustainable -- creating a true "dual conveyance" solution -- with new water supplies while providing reliable and higher quality water to the SWP in accordance with state law. This new water can be produced using green power, with no requirement to build additional fossil fuel power plants, nuclear plants, or to import "brown" power from other states that typically burn coal to generate electricity. The SolAgra WDIP also better restores the eco-balance in the Bay-Delta than the alternatives studied in the current draft BDCP and associated EIR/EIS while equaling or exceeding the water quantities projected by the BDCP with far less environmental impact.</p> <p>The SolAgra WDIP alternative is part of a reasonable range of alternatives that should be considered. Critically, the SolAgra alternative would reduce several of the significant and unavoidable impacts on the environment caused by the proposed BDCP project. The requirement to consider a reasonable range of alternatives and the ability of the SolAgra alternative to avoid or reduce significant impacts is discussed in more detail below.</p>	
1609	11	<p>A reasonable range of alternatives includes water supply intakes in the west Delta.</p> <p>The BDCP review process is required to consider an adequate range of alternatives under CEQA, NEPA and the Endangered Species Act (ESA). Under CEQA, an EIR must "describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (14 Cal. Code Regs., [Section] 15126.6[a].) "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." [Section] 15126.6[b]. In its screening and review of alternatives, the EIR must provide more than " cursory" analysis. (PCL v. DWR [2000] 83 Cal. App. 4th 892, 919.) An EIR should not construe project objectives so narrowly that only the proposed project could conceivably be capable of achieving them.</p> <p>Under NEPA, the alternatives section "is the heart of the environmental impact statement." The alternatives section should "sharply" define the issues and provide a clear basis for choice among options by the decision-maker and the public. (40 C.F.R. [Section] 1502.14.) The EIS alternatives section must "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." (40 C.F.R. [Section] 1502.14[a].) If "a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action." (40 C.F.R. [Section] 1502.9[a].)</p> <p>Under the ESA, a conservation plan submitted in support of an incidental take permit application must include "Alternative actions the applicant considered that would not result in take, and the reasons why such alternatives are not being utilized." (Habitat Conservation Planning and Incidental Take Permit Processing Handbook (1996), p. 3-10, citing 16 U.S.C. [Section] 1539[a][2][A][3], 50 C.F.R. [Sections] 17.22[b][1], 17.32[b][1], and 222.22.) HCPs</p>	<p>Please refer to response to comment 1609-1.</p> <p>Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. See Master Response 4 (Alternatives Development) for discussion of the scope of the proposed project and alternatives (such as water storage) that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project and for more information regarding pre-decision.</p> <p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. 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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>must also include, among other things, information regarding the applicant's plan to "minimize and mitigate" the impacts likely to result from incidental takes. (16 U.S.C. [Section] 1539[a][2][A][ii].)</p> <p>SolAgra understands that an EIR need not study in detail an alternative that is infeasible or that the lead agency has reasonably determined cannot achieve the project's underlying fundamental purpose. (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal. 3d 553, 574 ["a project alternative which cannot be feasibly accomplished need not be extensively considered"].) Moreover, a "potentially feasible alternative that might avoid a significant impact must be discussed and analyzed in an EIR so as to provide information to the decision makers about the alternative's potential for reducing environmental impacts." (Habitat &amp; Watershed Caretakers v. City of Santa Cruz [2013] 213 Cal. App. 4th 1277, 1304 [striking down EIR for failure to consider any alternative that would reduce the project's effect on the city's water supply].) The SolAgra approach could achieve the fundamental purposes of the BDCP and reduce significant environmental impacts, and should therefore be considered.</p> <p>With the exception of Alternative 9, the BDCP EIR/EIS evaluates only variations on the common theme of adding an isolated conveyance from the north Delta to the existing export facilities in the south Delta, referred to as Conservation Measure (CM) 1. There is also virtually no variation in CMs 2-21 among the project alternatives, which are the remaining so-called conservation measures in the BDCP aimed at species recovery. (EIR/EIS, Table 3-1.)</p> <p>Three years ago, the National Academy of Sciences declared in reviewing the then-current version of the draft BDCP: "Choosing the alternative project before evaluating alternative ways to reach a preferred outcome would be post hoc rationalization -- in other words, putting the cart before the horse. Scientific reasons for not considering alternative actions are not presented in the plan." (National Academy of Sciences Report in Brief (May 5, 2011), p. 2.) This problem has still not been corrected. Early in the BDCP planning process, there was a decision to focus on new north Delta diversions on the Sacramento River as the primary means to meet the objectives of the BDCP participants. (BDCP Appendix 3A, pp. 3A9-3A-11.)</p>	
1609	12	<p>Moreover, to achieve the objectives, purpose and need of the BDCP, a frank and detailed study of alternatives is required. The BDCP should include alternatives that actually provide water supply reliability, restore the Delta ecosystem, and improve water quality for both exporters and in-Delta users. Such a goal is included the 2009 Delta Reform Act, which directs the State as a whole to: "Achieve the two coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." (Wat. Code, [Section] 85054.) The Delta Stewardship Council can only accept the BDCP into the Delta Plan if, and only if, the BDCP has studied a reasonable range of conveyance alternatives (Wat. Code, [Section] 85320, subd. (b)(2)(B)), among other requirements. If the BDCP does not meet these requirements, it cannot be included in the Delta Plan and it will otherwise be non-compliant with State law.</p>	<p>Please refer to response to comment 1609-1. As previously noted, the Preferred Project is now Alternative 4A and no longer includes an HCP. Impact analyses of the Preferred Project and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS. Please see Master Response 5 (BDCP). Since Alternative 4A does not include an HCP and an NCCP, it would not be eligible for automatic inclusion in the Delta Plan pursuant to the terms of Water Code section 85320. Thus, although the Draft EIR/EIS included a range of alternatives consistent with the contents of subdivision (b)(2) of section 85320, the Lead Agencies no longer anticipate the need to demonstrate compliance with those content requirements to the California Department of Fish and Wildlife, and ultimately the Delta Stewardship Council, as contemplated by subdivision (e) of that statute. Rather, DWR will need to demonstrate compliance with the Delta Plan pursuant to Water Code section 85225.</p> <p>The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be, on balance, environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives Development).</p> <p>For more information regarding purpose and need of the proposed project please see Master Response 3 (Purpose and Need).</p> <p>For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31 (Compliance with Delta Reform Act), Appendix 3I (BDCP Compliance with the 2009 Delta Reform Act) and Appendix 3J (Alternative 4A (Proposed Project) Compliance with the 2009 Delta Reform Act).</p>
1609	13	<p>Several alternatives have been proposed publically to date, but not adequately studied as alternatives in the BDCP. [Footnote 1: Another such alternative is the Environmental Water Caucus, which has proposed a "Responsible Exports Plan" that calls for reducing exports from the Delta, implementing stringent conservation measures but no new upstream conveyance. This Plan prioritizes the need for a water availability analysis and protection of public trust resources that would comply with EPA statements indicating that more outflow is needed to protect aquatic resources and fish populations. (<a href="http://www.ewccalifornia.org/reports/responsibleexportsplanmay2013.pdf">http://www.ewccalifornia.org/reports/responsibleexportsplanmay2013.pdf</a>.)] The Western Delta Intakes Concept (WDIC) is the closest alternative given any consideration in the BDCP EIR/EIS to that proposed by SolAgra. (BDCP Appendix 3A, Section 3A.11.4.) The WDIC would relocate the principal point of diversion for exports from the South Delta to the West Delta. Water surplus to upstream and in-Delta needs and the Delta outflow required to sustain fisheries would be extracted through permeable embankments on Sherman Island and then conveyed through large tunnels to Clifton Court Forebay for subsequent export.</p> <p>The principle objective and benefits of this intake relocation would be:</p> <ul style="list-style-type: none"> <li>* To restore more natural flows through the Delta both in pattern and quantity, supporting the retention of X-2 at its historical range, contributing to the recovery of natural breeding and feeding grounds for aquatic species of concern and more capable of coexisting with the increased minimum Delta outflow requirements that EPA, the State of the Estuary Report, the State Water Board and many other analyses have clearly shown would be required to restore the Bay-Delta and its fisheries;</li> <li>* To improve both in-Delta and export water quality, rather than improving export water quality at the expense of in-Delta water quality; and</li> <li>* To avoid significant impacts to North Delta communities, water supplies, and flood control facilities.</li> </ul> <p>A western Delta intake location thus should be considered. The EIR/EIS describes how a concept similar to what SolAgra proposes, referred to as the "Pyke Proposal", was not carried forward for further analysis. (EIR/EIS, Appendix 3A, pp. 3-89 to 3-92.) A point by point rebuttal to the coverage of the WDIC is provided in Appendix A to the comments of Dr. Pyke on the draft BDCP, dated May 26, 2014, and is not repeated here. The EIR/EIS primarily dismisses the WDIC over concerns of water quality affecting export reliability. (BDCP EIR/EIS, Appendix 3A, p. 3-91.) However, the SolAgra West Delta Intake Plan alternative addresses this issue by proposing to directly pump fresh water when available from the Sacramento River into the tunnel for immediate conveyance, and to only</p>	<p>Please see response to comment 1609-1, above. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the Draft EIR/EIS. In response to public input, several new alternatives have been studied in the Recirculated DEIR/EIS and a new Preferred Alternative (4A) identified.</p> <p>Fifteen alternatives and 3 new subalternatives were analyzed in the EIR/S and the RDEIR/RSEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the Final EIR/EIS and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1.</p> <p>Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4 (Alternatives Development).</p> <p>Appendix 3A explains why various proposals were not analyzed in the EIR/EIS, including concepts that include diversion facilities near Rio Vista, including a potential alternative with an intake at Sherman Island and intakes near City of Antioch. The ability to divert water in the western Delta (e.g., near Rio Vista, Antioch, Decker Island, or Sherman Island) could be limited due to the presence of delta smelt in the winter and spring months in accordance with requirements of the U.S. Fish and Wildlife and in other months to protect longfin smelt which is a listed species by the California Department of Fish and Wildlife. The effects on delta smelt and longfin smelt could be increased in the future with sea level rise that would extend the brackish water interface further into the western Delta near Sherman Island for longer periods of time than under existing conditions.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		desalinate water from the WDIP as necessary. The SolAgra alternative also avoids the creation of a Sherman Island Forebay that was severely criticized due to the large volume of mass excavation that was required to create it. By processing incoming fresh and brackish water in real time, the need for a forebay on Sherman Island is eliminated.	
1609	14	The BDCP EIS/EIS does not consider the possibility of providing water treatment -- desalination -- at the West Delta Intake Plan (WDIP) location. Though energy demand can be a limitation on the feasibility of desalination, in this case, solar powered filtration/desalination and pumping into the west delta operational facilities could convey newly created fresh water from Sherman Island to the SWP's Bethany Reservoir. This would be the best destination because the SWP primarily serves urban water users that require higher quality water. In summary, variations of the Western Delta Intakes Concept proposal, including that proposed by the SolAgra WDIP, meet project objectives and are feasible, and therefore must be considered.	<p>Please see response to comments 1609-1 and 1609-13, above. 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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>Neither CEQA nor NEPA requires lead agencies to analyze in detail every potentially feasible alternative to a proposed project. Rather, these statutes require lead agencies to address a reasonable range of alternatives in an EIR or EIS, as has been considered in this EIR/EIS.</p> <p>See Master Response 7 (Desalination) for a more detailed discussion of various desalination projects under consideration and in development at this time.</p>
1609	15	<p>How would a western Delta intake be more likely to receive take authority and meet project objectives?</p> <p>One of the many barriers to the proposed BDCP project is the ability to be permitted as both a state and a federal habitat conservation plan. However, the primary objective of the BDCP -- obtaining Incidental Take Permits -- may not be met in view of the BDCP's failure to produce an Effects Analysis that can meet minimum requirements of state and federal law.</p> <p>For instance, the benefits to listed species are uncertain at best for BDCP. For instance, the current public review draft of the BDCP shows that implementation of the BDCP could potentially imperil nine key species including salmon, delta smelt and greater sandhill cranes. [Footnote 2: See article by Matt Weiser, Fate still unclear for nine species in Delta water tunnel plan (December 18, 2014), available at: <a href="http://www.sacbee.com/2013/12/18/6009767/fate-still-unclear-for-nine-species.html">http://www.sacbee.com/2013/12/18/6009767/fate-still-unclear-for-nine-species.html</a> Species include Longfin smelt, delta smelt, Winter Spring and Fall Chinook salmon, Green sturgeon, White sturgeon, Steelhead and Greater sandhill crane.] A plan that imperils the very species it seeks to cover is unlikely to receive needed permits under the state and federal Endangered Species Acts. These species are imperiled by factors such as the reduction in freshwater flows in the Sacramento River, entrainment in the new and existing SWP/CVP pumps, and by the major land use changes brought about by the conversion/creation of tidal habitat in presently dry areas.</p> <p>The ability of the restoration components of the BDCP to function as planned is also severely doubtful. As indicated in the March 2014 Delta Science Program Independent Review Panel Report - BDCP Effects Analysis Review, Phase 3:</p> <p>"The net Effects Analysis tends to overreach conclusions of positive benefits for covered fish species, given the inability to quantify the over-all net effects and the realization of high uncertainty. In particular, it does not adequately defend conclusions regarding the net effects of habitat restoration. Restoration of tidal wetlands (and other communities) is highly uncertain and at least an extremely long process. The Effects Analysis does not</p>	<p>Please see response to comment 1609-1. As previously noted, the Preferred Alternative is now Alternative 4A. Impact analyses of the Preferred Alternative and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS. Please see Master Response 5 (BDCP) and Master Response 29 (Timing of Endangered Species Act Compliance) for additional discussion.</p> <p>Comments regarding the Net Effects analysis are addressed in the Delta Science Program Independent Review Panel Report: BDCP Effects Analysis Review, Phase 3. Potential effects on listed fish species are fully analyzed in this Final EIR/EIS, the Biological Assessment, and 2081(b) permit application. North Delta diversion facilities would provide needed improvements to the SWP while restoring more natural flow patterns in the Sacramento River and reducing entrainment that would benefit listed fish species. Please see Chapters 11 and 12 of the Final EIR/EIS and Master Response 21 (Biological Resources).</p> <p>This comment is directed to the adequacy of the BDCP as an HCP/NCCP, which is not included in the preferred alternative (Alternative 4A)</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>adequately justify the critical assumption of the benefit of tidal wetland restoration as a food web subsidy for covered pelagic fish given the uncertainties of tidal wetland restoration itself. A critical issue is the implicit expectation that restoration activities will result in increases in abundance of lower trophic levels, but it is uncertain whether the resulting increased production will result in food web pathways supporting covered species. . . ."</p> <p>(BDCP Effects Analysis Review, Phase 3, p. 7, available at: <a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/Delta-Science-Independent-Review-Panel-Report-PHASE-3-FINAL-SUBMISSION-03132014_0.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/Delta-Science-Independent-Review-Panel-Report-PHASE-3-FINAL-SUBMISSION-03132014_0.pdf</a>.)</p>	
1609	16	<p>The shoreline lengths along Sherman Island and the difference in water properties that can be obtained by water inflows that are taken along various segments of the Sacramento River, San Joaquin River and the brackish water flows in the Sherman Lake area allow the installation of multiple, low-flow intakes rather than the few high volume intakes proposed by the BDCP's North Delta intake plan. Multiple low-flow intakes, with lower probability of fish take, have a higher probability of approval. By providing water supply in a less environmentally damaging manner that preserves the natural flow of the Sacramento River, the SolAgra West Delta Intake Plan Alternative is more likely to be permitted as a state and federal conservation plan than the BDCP.</p> <p>What significant effects could be avoided with the SolAgra alternative?</p> <p>The SolAgra West Delta Intake Plan alternative would reduce or avoid significant impacts identified in the EIR/EIS, as well as reduce or avoid impacts that the EIR/EIS has either failed to address or inaccurately characterized as less than significant. A few of those impacts are discussed below. With proper review and analysis as a project alternative, additional environmental and other benefits of the SolAgra alternative would be determined in greater detail.</p>	<p>Please see response to comments 1609-1 and 1609-13. As previously noted, the Preferred Project is now Alternative 4A. Impact analyses of the Preferred Project and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS. Please see Master Response 5 (BDCP).</p> <p>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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives).</p> <p>Appendix 3F describes the process(es) and steps used to identify and refine intake locations for analysis in the EIR/EIS. The identification of potential intake locations was accomplished through an iterative process involving engineers and resource experts most familiar with existing facility operations, river hydrology, and the biological resources in the Delta. This process included convening a Fish Facilities Technical Team, conducting a Value Planning Study, and participating in numerous collaborative meetings with technical staff from the various agencies and consultants collaborating in the process to discuss evolving information.</p> <p>As explained in Chapter 3 of the Final EIR/EIS, all intakes would be equipped with self-cleaning, positive barrier fish screens designed to be protective of salmonids and delta smelt. Fish screens would comply with CDFW and NMFS fish screening criteria (refer to the July 2011 BDCP Fish Facilities Technical Team Technical Memorandum for additional detail on fish screening criteria). The screens would consist of vertical, structurally reinforced wedge wire screen panels of stainless steel with 1.75-millimeter (0.069-inch) openings (i.e., fish screens) sized to reduce effects on fish and aquatic resources. All new intakes, under all alternatives would incorporate such state-of-the art fish screens.</p> <p>As explained in Chapter 11 of the Final EIR/EIS, in recognition of the slight potential for smelt to occur near the north Delta intake facilities, the diversions will incorporate screens that meet design specifications developed to reduce the risks of entrainment and impingement. The screens would be expected to effectively exclude juvenile and adult delta smelt longer than 22-mm standard length (SL) (BDCP Appendix 5.B, Section 5.B.6.2.2.2, Entrainment). Fish smaller than 22 mm would be susceptible to entrainment (Swanson et al. 2005; Young et al. 2010; White et al. 2007); larger larvae would be less likely to become entrained but could be impinged on the screens. The screens are expected to be effective at excluding all life stages of winter-run Chinook salmon that would occur in the vicinity including juveniles outmigrating during December-April (as evaluated in BDCP Appendix 5.B, Entrainment, Section 5.B.6.2.1).</p> <p>The project's adaptive management plan includes monitoring the screens to determine their effectiveness. If the screens are not meeting expectations, additional measures may be implemented to improve screen performance. These measures could include modifications to the screens or other structural components at</p>

DEIRS Ltr#	Cmt#	Comment	Response
			the intakes, or changes in water diversion operations to reduce entrainment or impingement rates.
1609	17	<p>Agricultural Resources and Delta Communities:</p> <p>By reducing the freshwater flow through the Delta that is normally provided by the Sacramento River, the BDCP will significantly degrade water quality for more senior - Delta agriculture and municipal/industrial intakes, as well as for species of concern. Removal of fresh water inflows from the Sacramento River is expected to result in several significant and unavoidable water quality exceedances for which only inadequate mitigation is proposed. (BDCP EIR/EIS, Chapter 8.) These water quality impacts will reduce or eliminate agricultural productivity in an area that currently has excellent water quality. Relocation of intakes to Sherman Island would avoid local water supply impacts while also providing higher quality water to the SWP.</p>	<p>Please see response to comment 1609-1. As previously noted, the Preferred Project is now Alternative 4A. Impact analyses of the Preferred Project and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS. Please see Master Response 5 (BDCP).</p> <p>Please see Chapter 8 and Appendix 3B of the Final EIR/EIS for the updated water quality impact analyses and avoidance and minimization measures, environmental commitments and proposed mitigation measures to address water quality impacts of the BDCP and other project alternatives. Please also see Master Response 14, Water Quality. For a discussion of the adequacy of the various avoidance and minimization measures, environmental commitments and mitigation measures, please see Master Response 22, Standards Governing the Adequacy of Mitigation Measures.</p> <p>Under the new preferred alternative (Alternative 4A), all impacts to water quality from the construction and operation of three new north-Delta intakes would be less than significant, or less than significant with mitigation, with the sole exception of methylmercury that may be produced as a result of the limited tidal marsh restoration proposed to mitigate other project impacts.</p> <p>Appendix 3F describes the process(es) and steps used to identify and refine intake locations for analysis in the EIR/EIS. The identification of potential intake locations was accomplished through an iterative process involving engineers and resource experts most familiar with existing facility operations, river hydrology, and the biological resources in the Delta. This process included convening a Fish Facilities Technical Team, conducting a Value Planning Study, and participating in numerous collaborative meetings with technical staff from the various agencies and consultants collaborating in the process to discuss evolving information.</p>
1609	18	<p>Additionally, the BDCP "conservation measures" require up to 150,000 acres of productive, agricultural land to be acquired, converted, restricted or otherwise impacted. This conversion of productive agricultural land to aquatic habitat can be more generically described as: "flooding precious farmland". (BDCP, Tables 3-4, 6-2, 8-1.) Under the SolAgra West Delta Intake Plan alternative, less than 1,000 acres of grazing land would be used to construct the Pumping &amp; Desalination facilities on Sherman Island. plus, the indirect effects on agriculture from changes in salinity and water levels in the north Delta from operation of the BDCP's proposed Sacramento River intakes would be completely avoided. Moreover, the SolAgra alternative would not require any agricultural land conversion to accommodate experimental restoration projects to create mitigation for the unavoidable environmental consequences described in the EIR/EIS for the BDCP.</p>	<p>Please see response to comment 1609-1. As previously noted, the Preferred Project is now Alternative 4A and no longer includes an HCP/NCCP. Impact analyses of the Preferred Project and all alternatives have been presented in the 2015 RDEIR/SDEIS and this Final EIR/EIS. Because the new preferred alternative does not include extensive habitat restoration that is included in the BDCP, it will have much lower impacts on agricultural lands. See Chapter 14, Agriculture, and Master Response 18, Agricultural Mitigation for more discussion. To meet the rigorous standards of an HCP/NCCP, the BDCP must include habitat restoration. Thus, if that alternative is selected, the type of conveyance alone would not avoid the conversion of certain agricultural lands to restored habitat, as the comment suggests. Please see Master Response 5 (BDCP) for additional discussion of Alternative 4.</p> <p>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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives).</p> <p>For more information regarding significant and unavoidable impacts please see Master Response 10 (Significant and Unavoidable Impacts.)</p>
1609	19	<p>Construction of the BDCP - Conservation Measure tunnels, in particular, would bring about major changes to north Delta communities and landscapes. With the SolAgra alternative, impacts to the historic communities in the North Delta would also be entirely eliminated. Sherman Island is already largely in public ownership. Much of the land is grazing land. This makes conversion of a small percentage of its land area for use for water pumping,</p>	<p>Please see response to comment 1609-1. In December 2014, roughly five months after completion of the public review period on the DEIR/DEIS, state and federal Lead Agencies, along with the administration of Governor Brown, announced several changes to the proposed water conveyance facilities associated with the proposed BDCP to reduce environmental impacts, including elimination of the need to build three pumping plants, a component of the intake facilities, along the Sacramento River near Hood. In addition to</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>processing, desalination and limited storage far less disruptive than what is proposed under BDCP Alternative 4.</p>	<p>the changes announced in December 2014, the proposed water conveyance facilities were refined based on further engineering analysis and in consideration of feedback received during the 2013 public comment period.</p> <p>The changes were made to achieve the benefits listed below.</p> <ul style="list-style-type: none"> <li>• Eliminate three pumping plants associated with the new intake facilities, and the visual effects associated with these facilities, on the east bank of the Sacramento River between Clarksburg and Courtland.</li> <li>• Minimize construction activities on Staten Island, which provides important sandhill crane habitat, by removing tunnel launch facilities, large reusable tunnel material (RTM) storage areas, a barge landing site, and high-voltage power lines.</li> <li>• Minimize impacts on private landowners by relocating project features to property already owned by DWR and reducing the acreage of lands needing to be acquired from private and nongovernmental organization landowners.</li> <li>• Eliminate the need for additional permanent power lines to the intake locations in the north Delta, including near Stone Lakes National Wildlife Refuge.</li> <li>• Eliminate impacts on Italian Slough near Clifton Court Forebay by removing an underground siphon.</li> <li>• Reduce electric power requirements for construction and operation of the facilities.</li> <li>• Allow water to flow from the Sacramento River and through screened intakes, initial tunnels, an intermediate forebay, main tunnels, and into Clifton Court Forebay entirely by gravity at certain river stages. As previously proposed, only flows between the intermediate forebay and Clifton Court Forebay would be conveyed by gravity.</li> <li>• Reduce tunnel operation and maintenance costs.</li> </ul> <p>These changes would eliminate the need to build three separate two-story pumping plants along a 5-mile stretch of the Sacramento River between Clarksburg and Courtland. The original plans to build three intakes screened for fish protection along that stretch of river would not change, but, after extensive engineering analysis, DWR determined that it is not necessary to build pumping plants adjacent to each intake to move the water from the river into tunnels. Instead, water could be moved from the river into tunnels by two new pumping plants constructed 40 miles away, on DWR property at the southern end of the tunnels near Clifton Court Forebay.</p> <p>Those refinements substantially lessened the impacts to the north Delta community consistent with the intent of both CEQA and NEPA.</p> <p>By locating new intakes for dual conveyance on the Sacramento River, the new diversions would also help protect critical water supplies against the threats of sea level rise and earthquakes. As explained in Chapter 2, Project Objectives and Purpose and Need, and Master Response 3, Project Objectives and Purpose and Need, the project objectives include:</p> <ul style="list-style-type: none"> <li>• To make physical improvements to the conveyance system in anticipation of rising sea levels and other reasonably foreseeable consequences of climate change.</li> </ul>

DEIRS Ltr#	Cmt#	Comment	Response
			<ul style="list-style-type: none"> <li>To make physical improvements to the conveyance system that will minimize the potential for public health and safety impacts resulting from a major earthquake that causes breaching of Delta levees and the inundation of brackish water into the areas in which the SWP and CVP pumping plants operate in the southern Delta.</li> </ul> <p>Locating new intakes in the western Delta at the mixing zone of high-salinity water and freshwater outflows would not achieve those objectives.</p> <p>Please see Appendix 3A, Alternatives Screening, of the Final EIR/EIS and Master Response 4, Alternatives, for more discussion about the selection and adequacy of the range of 18 project alternatives studied in the Final EIR/EIS.</p>
1609	20	<p>Greenhouse Gas Emissions:</p> <p>In the SolAgra alternative, construction and operational greenhouse gas (GHG) emissions would also be significantly reduced and 100% offset by production of green power at Ryer Island.</p> <p>The EIR/EIS discloses that the BDCP would produce over 1.7 million metric tons of GHG during an estimated 9 year construction period for the Dual Conveyance Tunnels. (EIR/EIS, Table 22-94.) An additional 161 metric tons of GHG emissions would be emitted every year under operation of the proposed project. (EIR/EIS, Table 22-96.)</p> <p>This calculation understates the actual amount however, as the Draft EIR/EIS presents a global warming potential (GWP) for methane (CH<sub>4</sub>), of 21 over a 100-year time horizon. Yet, the Intergovernmental Panel on Climate Change updated the GWP for methane to 25 over a 100-year time horizon [Footnote 3: IPCC, Fourth Assessment Report: Climate Change 2007; <a href="http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html">http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html</a>.] and the EPA updated its GHG reporting rule in 2013. [Footnote 4: EPA, 40 CFR Part 98, [EPA-HQ-OAR-2012-0934; FRL-9902-95-OAR], RIN 2060-AR52, 2013 Revisions to the Greenhouse Gas Reporting Rule and Final Confidentiality Determinations for New or Substantially Revised Data Elements, November 15, 2013, Table 2, page 21; <a href="http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf">http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf</a>.] The EIR/EIS should rely on the most recent scientific consensus for GWPs published by the IPCC.</p> <p>Construction GHG emissions under the SolAgra approach would be significantly reduced primarily due to a single, smaller, pressure tunnel that is less than half the length of that proposed in the BDCP Alternative 4. The SolAgra tunnel from Sherman Island to Bethany Reservoir would be the size of a normal transit (subway) tunnel for which Tunnel Boring Machines (TBMs) are readily available. The dual tunnels proposed by the BDCP are so large that they would require the invention and creation of TBMs of a size that have never been previously built. GHG emissions during construction of the SolAgra tunnel would be more than offset by the production of Renewable Energy Credits (carbon credits) generated by the operation of the Ryer Island Solar Power Plant that provides power to operate the Sherman Island pumping/ desalination plants. Ultimately, the SolAgra alternative would actually reduce GHG emissions rather than increase them. Continued operation of the pumping/ desalination facilities during the entire life of the project at Sherman Island would be accomplished using 100% green power, making the SolAgra alternative an environmental benefit rather than the environmental deficit created by the BDCP.</p>	<p>Please see Chapter 22 of the Final EIR/EIS for the updated analysis of greenhouse gases. The Final EIR/EIS used a GWP for Methane of 28, citing Myhre et al. 2013, thus the analysis does not underestimate the impacts of increase Methane emissions associated with any of the project alternatives.</p> <p>DWR does not assume that implementation of the Climate Action Plan will reduce GHG impacts. As explained in EIR/EIS Chapter 22, modifications to DWR's Renewable</p> <p>Power Procurement Plan for alternatives that would require additional renewable energy resources to maintain DWR's emissions reduction trajectory under the Climate Action Plan have been identified to ensure project activities do not conflict with DWR's ability to achieve the GHG reductions outlined in the CAP. As such, operational emissions from 1) increased SWP pumping and 2) project maintenance are addressed consistent with DWR's CAP and are found to be less than significant.</p> <p>Please refer to Appendix 3B, Environmental Commitments, AMMs, and CMs, Section 3B.2.10 for applicable best management practices from the CAP that will be implemented by the project. Please also see Master Response 19 regarding how the EIR/EIS analyzes climate change and greenhouse gases.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		The EIR/EIS incredibly assumes reduced GHG emissions under project operations by assuming that DWR will reduce GHG emissions statewide by compliance with its Climate Action Plan (CAP), and that no mitigation is necessary, even though operation of the tunnels would add approximately 1,405 gigawatt hours of additional net electricity demand each year. (EIR/EIS, pp. 22-43, 22- 263.) Direct provision of renewable energy for the SWP would be a superior approach.	
1609	21	The transmission of 2.4 million acre-feet/year from Sherman Island to Los Vaqueros Reservoir at elevation 475 feet for ultimate delivery to Bethany Reservoir at elevation 244 feet would provide the opportunity to install a hydro- electric power plant just above Bethany Reservoir that would produce enough green hydro-electric energy to power many of the pumping plants along the California Aqueduct that currently are powered by "brown" power from local utilities. Using the SolAgra concept at Sherman Island, the California Aqueduct could become "self-powered" using the pumping pressure of the water flow from the pumping/desalination plant that is also powered by green solar power.	The comment provides useful and interesting information, but does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1609	22	We strongly suggest that the SolAgra West Delta Intake Plan alternative, and any other reasonable variations, be fully analyzed as viable alternatives to the BDCP in the recirculated BDCP Plan and its associated EIR/EIS. The SolAgra WDIP alternative, and other local innovations, can comprise workable, 21st Century solutions that meet water supply objectives without compromising the environmental and economic values of the Delta without burdening our children and future generations with 50 years of unnecessary debt. Let us provide future generations with good water from sustainable resources at a reasonable price.	Please see response to comment 1609-1. 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, a proposal from the Water Advisory Committee of Orange County, the so-called Pyke proposal, and other similar concepts that would require actions that are beyond the scope of the proposed project.  For more information regarding alternatives to the proposed project please see Master Response 4 (Alternatives).
1609	23	[ATT 1: Map of Electrical Power Corridor from Ryer Island to Sherman Island -- "Power Path".]	This comment describes an attachment to the comment letter. Please see above responses to comments.
1609	24	[ATT 2: Map of Water Tunnel Conveyance from Sherman Island to Bethany Reservoir --"Water Path".]	This comment describes an attachment to the comment letter. Please see above responses to comments.
1609	25	[ATT3: Map of Northern California "Power Grid" and table of annual energy demand and annual energy production.]	This comment describes an attachment to the comment letter. Please see above responses to comments.
1610	1	The Delta water system is made up of inflow and outflow of water from several waterways through various tributaries and out through the San Francisco Bay. Flow of water -- at specific times, at specific temperatures, and at specific rates -- is critical habitat to a plethora of fish and wildlife living within the estuary. The BDCP proposes to increase water supply reliability by diverting the Sacramento River through twin 40-foot tunnels under the Delta for export to the San Joaquin Valley and Southern California. It also proposes creation of approximately 150,000 acres of new habitat in the Delta to restore the estuary and offset adverse impacts from diverting vast quantities of water around the Delta.	The description of the proposed project as presented in the Executive Summary of the Draft EIR/EIS includes several tunnel reaches that would range from 29-feet to 40-feet inside diameter to convey water from the North Delta intakes to the SWP Banks Pumping Plant and the CVP Jones Pumping Plant, as described in Section 3.4.1.1 in Chapter 3, Description of Alternatives. Under Alternatives 1 through 5 and 7 through 9, water also would be diverted from the South Delta intakes to the SWP and CVP pumping plants. Under most alternatives, up to 72,139 acres of habitat would be restored, and up to 60,525 acres of existing wetlands and cultivated lands would be protected to continue to provide habitat, as described in Section 3.6.2.3. Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input.
1610	2	The BDCP Conservancy Strategy also identifies some 222,902 acres of existing conservation lands in the plan area. These include properties managed by conservancies and land trusts, agency restoration sites, designated biological mitigation sites, wetlands owned or managed by agencies or private parties, conservation easements, parks, and lands associated with implementation of HCPs and NCCPs. [Footnote 1: Public Draft, Bay Delta Conservation Plan:	The Recirculated Draft EIR/Supplemental Draft EIS released in 2015 introduced a new preferred alternative, 4A, which does not include a HCP or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Alternative 4A would implement substantially less habitat restoration than Alternative 4. Please refer to Chapter 3, Description of Alternatives for more detail. Please

DEIRS Ltr#	Cmt#	Comment	Response
		Chapter 3, Conservation Strategy, Table 3.2-2, page 3.2-20.] The costs of tunnel infrastructure will be paid by the state and federal water contractors while the vast majority of habitat restoration costs will be borne by the general public.	also see Master Response 5 regarding costs and funding.
1610	3	Delta aquatic habitat has been greatly altered by 150 years of reclamation. Between 1930 and 1943, an average of 82% of estimated unimpaired flow reached San Francisco Bay. In recent years, unimpaired flow has declined to less than 50%. [Footnote 2: Swanson, C., WATER-Freshwater Inflow Indicators and Index, Technical Appendix, State of San Francisco Bay 2011, Appendix B, page 73.] The majority of the tidal marsh, slough, and open water habitats were reclaimed or altered by a vast system of levees and connecting sloughs by the second decade of the last century. More recently, two major ship channels were carved through the Delta. However, these changes have only exacerbated the vast alteration of natural habitat thanks to water diversions through the Central Valley Project (CVP) and State Water Project (SWP). Massive diversions of water through the CVP and SWP to the San Joaquin Valley and Southern California preceded a precipitous decline in pelagic and anadromous species, including numerous species listed as endangered under State and Federal laws. A number of fishery scientists now refer to the Delta as being in a state of perpetual drought. The number of years of critically low inflow to the Bay has more than tripled to 62% of the time since the 1930s. [Footnote 3: Swanson, C., The Power of Measurement, Part II: Projected Freshwater Inflow to the San Francisco Bay Estuary with the Bay Delta Conservation Plan, Swanson's Blog, NRDC Switchboard, 17 December 2013, page 2.]	The timing and volume of flows through the Delta is important and the new preferred alternative, 4A, was developed to specifically target key fish during specific times of the year to minimize and avoid impacts to these fish. Alternative 4A also includes an adaptive management program intended to improve understanding of the necessary flows for listed fish. Please see the Final EIR/EIS Chapter 11 Effects and Mitigation Approaches- Alternative 4A, 2D and 5A and Master Response 17, Biological Resources for more information.
1610	4	In 2010 the State Water Board convened a comprehensive proceeding, mandated by the State Legislature, to study the development of flow criteria for the Delta. The proceeding included testimony and evidence by agency and independent scientists, academia, water agencies and public interest groups. [Footnote 4: State Water Resources Control Board, Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, 2010, page 5.] The conclusion found by the State Board was that 75% unimpaired flow is needed to protect public trust resources and estuarine health. The California Department of Fish and Wildlife, under a similar legislative mandate, reached similar conclusions. [Footnote 5: CDFG, Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta, 2010.]	Analyses in the EIR/EIS for water supply, surface water, water quality and fish and aquatic resources assume the current regulatory requirements under Decision 1641 and USFWS and NMFS Biops. Should the State Water Board decide to change these requirements in future Bay-Delta proceedings, DWR and Reclamation will comply with the new requirements for operation of the SWP and CVP. The comment is consistent with the referenced material which was considered in the development of Section 11.1 of Chapter 11, Fish and Aquatic Resources, of the BDCP/CWF EIR/EIS. For information on supplemental modeling requested by the SWRCB related to increased Delta outflows, please see Appendix 5E.
1610	5	The BDCP proposes approximately 150,000 acres of habitat restoration, focusing primarily on tidal marsh restoration. Tidal marsh is proposed to provide direct and indirect benefits to Delta fish through the food web and as habitat for various fish species or specific life stages. However, Native Delta species depend heavily on the Delta habitats, especially in drier years when flows are insufficient to move their young downstream to the Bay.	The Recirculated Draft EIR/Supplemental Draft EIS released in 2015 introduced a new preferred alternative, 4A, which does not include a 50-year take permit, HCP, or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Please refer to Chapter 3, Description of Alternatives, for additional detail about the habitat restoration proposed under Alternative 4A. For additional information regarding large scale restoration efforts and adaptive management please reference the EcoRestore webpage and Master Response 33 and changes with the preferred project from the BDCP objectives, Master Response 5.
1610	6	Delta smelt are pelagic species found predominantly in shoal and open water, and benches near the open water. Young smelt and salmon rear in brackish water in what is called the Low Salinity Zone or LSZ. This zone is typically defined as 0.5 to 6.0 ppt salinity (or roughly 500-10,000 EC conductivity). The LSZ is important because it provides slightly brackish water, frequently suitable water temperatures, and abundant prey for the young fish. X2, the center of the LSZ, is measured at 2 ppt salinity. LSZ and X2 move throughout the year. The main rearing period for the young of both smelt species is late winter into early	An RDEIR/SDEIS was developed and circulated in 2015, which included 3 additional non-HCP Alternatives including the new preferred alternative, 4A. Alternative 4A does not include large-scale restoration. Restoration proposed would be designed to mitigate for lost habitat values. Issues related to rearing habitat for delta smelt and the methods used to assess potential effects are 4 described for Alternative 4. Much of the same discussion applies for Alternative 4A, which includes Fall X2 pursuant to the 2008 Delta Smelt BiOp, as does the NAA_ELT scenario; the Existing Conditions scenario does not. To reiterate the issues related to methods presented in Alternative 4, and as described in the low salinity zone discussion within

DEIRS Ltr#	Cmt#	Comment	Response
		summer. After spawning upstream in freshwater, by summer the smelt tend to concentrate at X2. In drier years the LSZ and X2 are found mainly in the Delta. Therefore, it is critically important that habitat be restored and developed within or near the LSZ if the expected benefits to smelt and other pelagic fishes are to be achieved.	Section 11.1.2.2, there are remaining uncertainties regarding the contribution of the survivorship of delta smelt in the fall period to interannual population variability, concerns regarding the current sampling data, and the need for investigation of the potential application of a habitat index that applies multiple habitat characteristics (Final EIR/EIS chapter 11 Alternative 4a Fish and Aquatic Resources.)
1610	7	Young salmon begin entering the Delta as fry soon after emerging from river spawning gravels from late winter to early spring. Fry and fingerlings (25-75 mm) concentrate in shoreline areas and adjacent margin habitats including tidal marshes, sloughs, and channels. Smolt salmon (80 mm +) are often collected in open channels migrating westward toward the ocean generally in winter and early spring, but are also found feeding in margin habitats. Therefore, it is important that habitats be restored and developed along their Delta migration pathways to ensure successful passage from the river to the Bay. BDCP proposes to restore only about twenty miles of channel margin habitat over a span of thirty years.	Alternative 4A includes Environmental Commitment 6 to restore tidal habitat and restore channel margin habitat. Alternative 4A involves greatly reduced habitat restoration relative to Alternative 4. Environmental Commitment 6 reduces enhancement from 20 miles to 4.6 miles. Please see the Final EIR/EIS chapter 11 Alternative 4a Fish and Aquatic Resources.
1610	8	New habitat creation is often used to mitigate adverse impacts to wildlife. When habitat is land, other land can occasionally be purchased and managed to mimic that of the land from which the animal or animals are displaced. However, this becomes increasingly difficult when the habitat in question is a precise flow of water. Water -- flowing at a specific rate, at a specific temperature, and through specific ecosystem conditions -- has no substitute.	Please refer to Master Response 3 regarding the purpose and need for the project. The proposed project was developed to meet the standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 22 regarding Mitigation.
1610	9	As a preliminary matter, developing comprehensive and detailed comments on this version of the BDCP is a difficult task because of the significant and numerous flaws contained in the BDCP itself. There are few details on specific habitat restoration projects. The BDCP EIR/EIS analyzes the tunnels to a project specific level, while habitat restoration has only been analyzed at a programmatic level. The lack of any well-defined operating plan for the proposed north Delta intakes, errors in hydrologic modeling, modeling for an effects analysis that violates the very rules contained in the BDCP itself, and an effects analysis based on this flawed modeling leaves the public in a position of trying to correct the significant flaws in the document and trying to recreate what the true impacts of the project are going to be. If the intent of the BDCP is to satisfy the requirements of the Delta Reform Act, fulfill the co-equal goals, and fulfill the Department of Water Resources' (DWR) public message about the BDCP, the BDCP should do a better job of articulating the specifics of all conservation measures in the plan -- not only the single conservation measure that provides DWR's contractors with a reliable water supply. The purpose of a Habitat Conservation Plan should never be to implement an environmentally destructive private construction project like CM-1 (the twin tunnels).	The analysis for CMs 2-21 was completed at a programmatic level, as described in Section 4.1.2 of Chapter 4, Approach to the Environmental Analysis. The alternative 4A implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Please refer to Chapter 3, Alternatives, for additional detail about the habitat restoration proposed under Alternative 4A. Please see Master Response 2 Project Level vs. Program level, Master Response 31 for Compliance with the Delta reform act, and Master Response 5 for a discussion about the Conservation Measures.
1610	10	Fishery agencies and scientists have bluntly questioned the likelihood that habitat creation will be as successful as claimed by BDCP proponents or whether habitat restoration can realistically offset the projected adverse consequences from increased exports and reduced outflow to San Francisco Bay. For example, the Delta Independent Science Board, in its review of the Draft BDCP EIR/EIS and Draft BDCP Plan observed, "Many of the impact assessments hinge on overly optimistic expectations about the feasibility, effectiveness, or timing of the proposed conservation actions, especially habitat restoration." [Footnote 6: Delta Independent Science Board, Review of the Draft BDCP EIR/EIS and Draft BDCP, May 2014. Page 3.] "Positive and timely benefits of habitat restoration are highly uncertain. Failure to realize these benefits will invalidate the final conclusion of no net negative effect." [Footnote 7: Id. Page A-25.] Likewise, the Panel Review of the Draft Bay Delta Conservation Plan, prepared for the Nature Conservancy and American Rivers said, "BDCP is too optimistic about benefits of tidal marsh and floodplain restoration for smelt, particularly	Please refer to Chapter 3, Alternatives, for additional detail about the habitat restoration proposed under Alternative 4A. The primary parallel habitat restoration program is called California EcoRestore (EcoRestore), which will be overseen by the California Resources Agency and implemented under the California Water Action Plan. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.

DEIRS Ltr#	Cmt#	Comment	Response
		the extent of food production." [Footnote 8: Mount J., et al., Panel Review of the Draft Bay Delta Conservation Plan, prepared for the Nature Conservancy and American Rivers, September 2013, page 109.]	
1610	11	The National Marine Fisheries Service, in comments on the Draft EIR/EIS said, "There is too much benefit to steelhead smolts assumed from habitat restoration in the Delta." [Footnote 9: National Marine Fisheries Service, Federal Agency Comments on Consultant Administrative Draft EIR/EIS, July 2013, Page 8.] The U.S. Fish and Wildlife Services wrote, "Scientific literature cited in the plan, new analyses provided by DWR, and conclusions of the independent scientific review panel have reinforced our concern that the BDCP restoration plan has not been carefully thought out and has uncertain prospects for benefiting native aquatic estuarine species, particularly delta smelt and longfin smelt." [Footnote 10: U.S. Fish and Wildlife Service Staff BDCP Progress Assessment, 2013, Page 7.] Habitat restoration cannot adequately offset the loss of flow due to diversion of massive quantities of fresh water around the estuary and succeed in restoring severely degraded fisheries.	Please see response to 1723-187. Please see Master Response 17 Biological Resources. Refinement of CM-1 was proposed in August 2013 with the goal of to identify and appropriately balance operations between exports and ecological issues and habitat restoration to give aquatic species what they need to reverse declines and contribute towards their recovery. DWR and its partner agencies used Alternative 4A as their starting point. This option includes 3 new intakes with a total of 9,000 cfs capacity and included scenario 6 operations developed with USFWS, NFMS, and CDFW. To support the selection of a revised operational scenario, the fish and wildlife agencies conducted modeling to examine the recovery needs of the covered fish throughout their range in the absence of habitat restoration (see Appendix 3A.10.6 Development of DWR "Proposed Project" in 2012).
1610	12	<p>In comments on the Administrative Draft EIR/EIS, the U.S. Environmental Protection Agency wrote that:</p> <p>"[t]here is broad scientific agreement that existing Delta outflow conditions are insufficient for protecting the aquatic ecosystem and multiple fish species, and that both increased freshwater flows and aquatic habitat restoration are needed to restore ecosystem processes in the Bay Delta and protect T &amp; E fish populations. This includes statements from lead federal agencies."</p> <p>Habitat restoration projects have historically been fraught with problems. Much of the historical and BDCP habitat restoration has been focused on restoring tidal marsh, with recent scientific debate focused on the relative merits of tidal marsh restoration on the shallow water and pelagic food web of the Delta. The key questions are: whether smelt and young salmon use the tidal marsh habitats, whether tidal marshes contribute to food production in the preferred smelt and salmon open water (pelagic) and channel margins (shoreline) habitats of the Delta, and whether restoration projects themselves create deleterious effects and the uncertainties of funding and actual implementation.</p>	As described for delta smelt and longfin smelt, Alternative 4A includes a greatly reduced extent of restoration measures relative to Alternative 4 and Alternative 1A, upon which the discussion of impacts for Alternative 4 is based. Environmental Commitment 4 Tidal Natural Communities Restoration is reduced from 65,000 acres to 59 acres, so that any impacts would be extremely small; Environmental Commitment 6 Channel Margin Enhancement is reduced from 20 miles to 4.6 miles and Environmental Commitment 7 Riparian Natural Community Restoration is reduced from 5,000 acres to 205 acres. The mechanisms of impacts of habitat restoration on winter-run Chinook salmon are anticipated to be similar under Alternative 4A to those described in detail for Alternative 1A, although the magnitude would be considerably reduced in proportion to the difference in restoration area. The effects of restoration measures described for delta smelt under Alternative 1A (Impacts AQUA-43 through AQUA-45) appropriately disclose the nature of the anticipated (please see Final EIR/EIS Chapter 11 Alternative 4A Fish and Aquatic Resources).
1610	13	<p>One key BDCP hypothesis is that tidal marshes export nutrients and food web production to adjoining pelagic habitats. However, recent scientific reports question that hypothesis. The 2013 Panel Review of the Draft Bay Delta Conservation Plan, prepared for the Nature Conservancy and American Rivers, found that "[t]idal marshes can be sources or sinks for phytoplankton and zooplankton. Most appear to be sinks, particularly for zooplankton." [Footnote 11: Mount J., et al., Panel Review of the Draft Bay Delta Conservation Plan, prepared for the Nature Conservancy and American Rivers, September 2013, page 109.] Further "even under the most highly favorable assumptions, restored marshes would have at best a minor contribution of plankton production in smelt rearing areas." [Footnote 12: Id.] In the work, "The Role of Tidal Marsh Restoration in Fish Management of the San Francisco Estuary (2014), the author found that</p> <p>"[m]ovement of plankton from a tidal marsh (beyond the immediate area of tidal exchange) is likely to be limited and to decrease strongly with distance. Even under ideal circumstances, plankton in water discharged from tidal marsh cannot greatly affect the standing crop of plankton in large, deep channels. Feeding by clams and other introduced</p>	Please see Master Response 5 regarding Conservation Measures. The potential for the proposed project to affect recruitment of the overbite clam, <i>Potamocorbula amurensis</i> , by water operations is discussed in section 5.5.1.1.1 of Chapter 5 of the Public Draft BDCP EIR/EIS. As discussed elsewhere in that section, decreases in food resources for delta smelt appear to have occurred because of change in phytoplankton and zooplankton communities related to grazing by nonnative organisms (e.g., <i>Potamocorbula</i> ) (Winder and Jassby 2011) and anthropogenic nutrient imbalance (Dugdale et al. 2007; Glibert et al. 2011). For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>species can further reduce contributions of marsh plankton to open-water food webs." [Footnote 13: Herbold, B. et al., The Role of Tidal Marsh Restoration in Fish Management in the San Francisco Estuary, 2014, page A-11. <a href="http://www.escholarship.org/uc/item/1147j4nz">http://www.escholarship.org/uc/item/1147j4nz</a>]</p> <p>As the Delta Independent Science Board recently wrote, "[w]hether or not any increases in primary production will be transferred to zooplankton and on to covered species that may reside in the restored area or outside of it is largely unknown." [Footnote 14: Delta Independent Science Board, Review of the Draft BDCP EIR/EIS and Draft BDCP, May 2014. Page B-39. ]</p>	
1610	14	<p>There is the looming question of whether the proposed habitat can be created without exacerbating methylmercury problems. As the National Marine Fisheries Service (NMFS) found:</p> <p>"There is no indication that the kinds of habitat restoration that can meaningfully contribute to estuarine fish viability can be created or restored without also methylating the ubiquitous mercury in the system because the management tools available conflict with these fishes' habitat needs. Minimization of water depth and reduction of turbidity to control mercury methylation conflict with the direct habitat needs of delta and longfin smelt and will in some locations favor invasive species such as sunfishes and water hyacinth. However, minimization of water depth and turbidity will maximize the potential for algal production and algal production will generate dissolved organic carbon (DOC). If, as the ADEIS implies, restoration sites will also be designed to minimize the export of DOC from restoration sites to minimize anoxic conditions (reducing methylation opportunities) these designs will also reduce their potential food web benefits. [Footnote 15: National Marine Fisheries Service, Federal Agency Comments on Consultant Administrative Draft EIR/EIS, July 2013, Page 10.]"</p> <p>Despite these concerns, BDCP's preferred alternative would increase mercury concentrations and exceed tissue toxicity thresholds in largemouth bass in the Delta. [Footnote 16: Bay Delta Conservation Plan, Appendix 8I, Mercury, Tables I-7a, I-15Aa, I-11Ba, I-11Ca, I-11Da.] Increases in mercury loading resulting from habitat restoration projects would only exacerbate the problem.</p> <p>This issue is not limited to mercury. Marshes are often sinks for organic contaminants like PCBs, PAHs, organochlorine compounds and organophosphate and pyrethroid insecticides.</p> <p>Selenium is a serious problem. NMFS commented on the BDCP EIR/EIS, and noted that "[a]n expected increase in contribution of San Joaquin River water to the Delta will increase selenium loading in the Delta, especially in the southern Delta and Suisun Bay where bioaccumulation by bivalves is assured (Stewart et al. 2004). This in turn represents an increased risk of deleterious reproductive effects caused by selenium accumulation in fish and wildlife." [Footnote 17: Id.] Despite this, BDCP's preferred alternative would increase annual average selenium concentration in sturgeon over the existing conditions and no action alternatives. [Footnote 18: Bay Delta Conservation Plan EIR/EIS, Appendix 8M, Selenium in Sturgeon, Tables 8M-2, 8M-3, Page 8M-9.]</p>	<p>Please see Chapter 8 Water Quality for more information on methylmercury and selenium. In addition please see Master Response 14 regarding Water Quality.</p>
1610	15	<p>There is also serious concern that diverting flow around the Delta and reducing outflow will expand the range of overbite clams. The Delta Science Program, in analyzing the Conservation Measures (CM) of the Bay-Delta Conservation Plan, stated that:</p>	<p>Please see comment 1610:13. Please see Master Response 5 regarding Conservation Measures.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Only adverse effects are indicated resulting from conservation measures in the context of invasive mollusks. CM1 [the twin tunnels project] may increase Corbula habitat by moving X2 upriver, assuming greater freshwater diversion. Given that Corbula is the more effective trophic competitor with covered planktivorous fish, this suggests degradation of habitat characteristics due to CM1. Restoration involved in CM4 (tidal wetland), CM5 (seasonally inundated floodplain), and CM6 (channel margin habitat) may increase potential benthic habitat for Corbula and Corbicula, overall exacerbating the impacts of these competitors. Tidal and shallow water habitat restoration, if invaded by Corbula or Corbicula may result in phytoplankton sinks actually worsening circumstances for fish. [Footnote 19: Delta Science Program, Review Panel Summary Report, Bay Delta Conservation Plan (BDCP) Effects Analysis, May 2012, page 60.]	
1610	16	Tidal energy is another area of uncertainty for habitat restoration. The Independent Science Board observed that "[t]idal energy coming from outside the Golden Gate is another limited resource in the development of habitat in the Delta and its larger estuary. A major effect of many of the proposed habitat restoration activities (as well as potential island failures in the future) is likely to be the changes in tidal amplitude and mixing. This will affect the suitability of certain characteristics for restoration." [Footnote 20: Delta Independent Science Board, Review of the Draft BDCP EIR/EIS and Draft BDCP, May 2014. Page B-17.] A number of agencies have expressed concerns that changes in tidal amplitude caused by creation of more open tidal habitat will increase salt intrusion in the Delta.	The analysis for CMs 2-21 was completed at a programmatic level, as described in Section 4.1.2 of Chapter 4, Approach to the Environmental Analysis, and meets NEPA and CEQA requirements. Please also note that the RDEIR/SDEIS, released in 2015, introduced a new preferred alternative, 4A, which does not include a HCP or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Under Alternative 4A, substantially less habitat restoration would occur than under Alternative 4. Therefore, most of the restoration to which the commenter is referring would no longer apply to the preferred alternative. Please see comment 1610-12. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.
1610	17	Given the programmatic level analysis of proposed habitat restoration, there is significant uncertainty that large-scale restoration projects will actually be implemented or implemented in a timely manner. The Independent Science Board acknowledged these concerns, noting that  "Construction and flow operations may have impacts immediately, whereas the restoration impacts and benefits may lag a decade or more after construction ... If proposed habitat restoration actions are not implemented in a timely fashion or are not as effective as assumed in the DEIR/DEIS, then the positive impacts of those actions would no longer be present, and the final assessment of a net positive or no net negative effect would not be valid ... The literature strongly suggests, however, that there are significant time lags between construction of a new habitat and its full functionality. This means that the benefits of habitat restoration may not occur for a long time and that the benefits may be too late for some species if negative impacts come first ... Even if all acres are acquired and restoration actions are taken in a timely manner, whether those actions will deliver the anticipated benefits or not is also uncertain." [Footnote 21: Delta Independent Science Board, Review of the Draft BDCP EIR/EIS and Draft BDCP, May 2014, page B-38, B-39.]	Please refer to Chapter 3, Alternatives, for additional detail about the habitat restoration proposed under Alternative 4A. The level of information provided in the EIR/EIS is adequate for Environmental Analysis. The Lead Agencies will coordinate planning, engineering, design and construction, operation, and maintenance phases of the alternative with the appropriate agencies. For more information regarding Environmental Commitments please see Appendix 3B of the Final EIR/EIS. Please see Master Response 2 regarding the level of detail provided in the EIR/EIS Analysis. For construction assumptions Please refer to the Final EIR/EIS, 3C. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.
1610	18	The lack of funding commitments for BDCP's proposed restoration projects creates major uncertainties. Habitat restoration is extremely expensive. Many previously proposed restoration projects have been unable to be implemented due to lack of funding. Even when property is purchased for restoration, the inability to secure funding can stop implementation. Previous projects that have been constructed have failed because they lacked sufficient funding to maintain or adaptively manage the habitat.	Please see Master Response 33 Adaptive Management and Monitoring, and see Master Response 5 regarding Cost.
1610	19	Native species like salmon, steelhead, Delta and longfin smelt, splittail, threadfin shad, native phytoplankton and zooplankton, and several species introduced in the 1800s like striped bass and American shad are collapsing. While these native species are collapsing,	The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Please refer to Chapter 3, Description of Alternatives, for additional detail about the habitat restoration proposed under

DEIRS Ltr#	Cmt#	Comment	Response
		<p>invasive predatory species like inland silversides, bluegill, largemouth bass, overbite clams and troublesome invasive plants like water hyacinth, arundo, Brazilian waterweed, parrots feather and potamogeton are flourishing.</p> <p>It is unclear whether habitat restoration can meet the physical goals and objectives of restoration. Further, it is unclear whether the contemplated restoration habitats would be appropriate for smelt and salmon. After four decades of sampling fish in Delta habitats, it is unclear whether altered habitats after levee breaching, channel digging, and vegetation planting are functioning. Further, it is unclear whether water quality been sufficient to support fish, or whether non-native invasive plants and fish have taken over these new restored habitats.</p>	<p>Alternative 4A. Please refer to Chapter 11 regarding impacts of Alternative 4A on fish and aquatic species. As is detailed in the rationale statement in CM15 Localized Reduction of Predatory Fishes, predation of juvenile salmon and steelhead by non-native fishes such as striped bass is one of the principal causes of mortality for these species during their migration through the Delta, and in some areas may be the leading cause of mortality. (Note that the new preferred alternative, 4A, will implement elements of CM15 (under Environmental Commitment 15) at predator hot spots associated with construction and operations of the proposed water conveyance facilities. See Chapter 3 in the FEIR/EIS for more details.) This fact is widely recognized by staff at each of the fish and wildlife agencies. CM15 was therefore developed with the goal of attempting to control this predation at a few recognized “hot spots” where prior studies have identified predation pressure as being particularly intense. Such a control effort has not been attempted before in the Delta. Similar control efforts in other parts of the world have often been ineffective, though there have been some successes. There is therefore large uncertainty about whether CM15 will achieve its goal, and as a result the effects analysis assigns little importance to CM15 in the assessment of purposed project’s net effects upon covered species. Accordingly, CM15 has been designed to function as a pilot and research program, measuring the effectiveness of various control strategies and assessing them in an adaptive management context. If those pilot studies indicate that CM15 has low effectiveness, then funding for this measure may be allocated to other, more effective conservation measures. Conversely, if CM15 succeeds in identifying effective control strategies, then it would likely be continued and perhaps expanded in scope, via the adaptive management provisions of purposed project.</p>
1610	20	<p>As discussed more fully below, the Bay Delta Conservation Plan (BDCP) conservation measures to improve important aquatic communities and habitats in the Delta Plan Area are wholly inadequate to mitigate for the expected effects of the BDCP. Furthermore, proposed conservation measures do not include protection and enhancement of the most important and affected habitat in the Delta: the low salinity zone and freshwater pelagic habitats of the Delta on which many Delta native fishes including delta smelt depend. These habitats are unproductive because they are quickly exported in drier years and summers of most years at the existing south Delta export facilities and thus lack the necessary residence time, nutrients, and water quality to sustain pelagic fish production.</p>	<p>Please see Master Response 5 regarding BDCP Conservation Measures. And Please see BDCP Appendix 5.C, Flow, Passage, Salinity, and Turbidity, Section 5.C.5.4.5.1, Delta Smelt Fall Abiotic Habitat Index; see also discussion in the low salinity zone discussion within Section 11.1.2.2).</p>
1610	21	<p>The West Delta Restoration Opportunity Area (ROA) especially lacks emphasis for many important aquatic habitat types despite its overall importance and sensitivity to Delta exports.</p> <p>There is no Central Delta ROA as this Delta region’s habitat appears to have been largely ignored by BDCP planners for restoration despite its central location in the area affected most by the North and South Delta exports. Conservation Zone 1 and 2, the center and northern Yolo Bypass also lack emphasis and are not included in any ROA.</p>	<p>Please see Master Response 28 regarding Operational Criteria. Please see comment 1610:2.</p>
1610	22	<p>CM1 is essentially a water conveyance project masquerading as a conservation measure. It will reduce outflow and exacerbate already poor Delta hydrological habitat that is essential for key fish species and their critical habitats. Conservation measures CM 2-21 are only analyzed at a programmatic level, lack assured funding and are highly unlikely to achieve the predicted results. There are no assurances that proposed habitat protections and enhancements will be able to overcome the long-term detrimental effects of excessive Delta water diversions or the proposed new North Delta conveyance facilities. Indeed, the programmatic nature of the conservation measures precludes anyone from identifying the number and extent of impacts to biological resources, water quality, and other beneficial uses; let alone determining whether the conservation measures will effectively mitigate</p>	<p>Please see Master Response 5 regarding BDCP Conservation Measures, Master Response 2 Project Level vs. Program Level, and Master Response 3 Purpose and Need.</p>

DEIRS Ltr#	Cmt#	Comment	Response
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1610	23	Continuation of South Delta exports with higher use in drier years and seasons will continue recent population declines and will not contribute to recovery of the species, because of further degradation of existing habitats.	Please see Master Response 14 regarding Water Quality. Implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11, EIR/EIS.
1610	24	Wetlands proposed predominantly in Suisun Marsh, East Delta (Cosumnes/Mokelumne Restoration Opportunity Area), and Cache Slough areas will have marginal benefit to key Delta foodwebs because of isolation from the Low Salinity Zone and key pelagic habitats. Invasive clams limit foodweb production in Suisun Bay and Marsh. Reductions in North and East Delta inflows from proposed North Delta exports would reduce net transport of water and foodweb contributors from Cache Slough and East Delta. No changes to water quality standards will mean that the Cosumnes/Mokelumne ROA will become more isolated from Delta inflows from the Sacramento River than under present conditions.	Please see Master Response 5 regarding BDCP Conservation Measures. See comment 1610:2. Please see Master Response 14 regarding Water Quality.
1610	25	CM1 lacks focus on Delta hydrodynamic factors that would provide benefits to the pelagic foodweb that would otherwise continue being devastated by north and south Delta exports. Specifically, Delta outflow remains the most critical factor in Suisun Bay and Delta portions of the Low Salinity Zone nursery areas of smelt and other pelagic organisms; under the BDCP, Delta outflows would further decline in drier year types and seasons to the detriment of the Low Salinity Zone pelagic habitat.	For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. CM1 provides for the development of new water conveyance facilities, sets out criteria for the operations of both new and existing facilities, and established requirements for outflow from the Delta. The CVP/SWP facilities include operations of the south Delta export facilities, a new Head of Old River operable gate, new north Delta intake facilities, Delta Cross Channel gates, the Suisun Marsh Salinity Control Gates, and a new North Bay Aqueduct intake. Each of these individual operations is proposed to interact and complement each other to provide important benefits to Covered Species and water supply and system reliability.
1610	26	CM2 focuses on the Yolo Bypass, Cache Slough, and Ship Canal habitats but offers little potential improvements to existing poor water quality conditions (mainly high water temperature and low dissolved oxygen) in these areas especially during spring and summer when these areas are important salmon and smelt nursery areas. In drier years, spring-summer habitats will suffer from reduced freshwater inflow to Cache Slough because of the proposed north Delta exports. There is no mention of the reducing amount of "stormwater" pollutants that degrade the smelt and salmon habitats in existing or proposed new habitat areas.	For more information regarding urban stormwater treatment please see CM19 of the HCP alternatives explained in more detail in the 2013 Public Draft. For more information regarding project versus program level please see Master Response 2. Please see Master Response 5 regarding Conservation Measures. Please see Master Response 2 regarding sufficiency of analysis for CM 2-21. The originally proposed habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as part of the Proposed Action, except to the extent required to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b). However, restoration actions that are independent of Proposed Action will continue to be pursued as part of existing projects and programs. Examples of these include the 2008 and 2009 USFWS and NMFS BiOps (e.g., Yolo Bypass improvements and habitat enhancements, 8,000 acres of tidal habitat restoration), (2) California EcoRestore, and (3) the 2014 California Water Action Plan.
1610	27	CM3 lacks focus and actions on west and central Delta tidal wetland improvements. There is lack of treatment of the linear shoreline habitats throughout the Delta. Smelt and salmon rearing are far more concentrated in shoreline and nearby open-water habitats than in tidal marshes.	Please see Comment 1610:26.
1610	28	There is a lack of specifics as to habitats, locations, and timing of habitat improvements relative to the needs of each of the target native fishes in the Delta.	The level of information provided in the EIR/EIS is adequate for Environmental Analysis. Environmental review is typically conducted based on plans not 100% complete, because complete engineering and design work is not required for impact assessment, and most lead agencies are reluctant to invest in complete engineering and design work before they know that their projects have received the entitlements and permits needed to proceed towards construction. Please see Master Response 2 for further information regarding the level of detail provided in the EIR/EIS Analysis.

DEIRS Ltr#	Cmt#	Comment	Response
1610	29	There are no actions offered to replace the millions of acre-feet of pelagic habitat that will be exported from the North and South Delta each year under the BDCP.	Increasing the amount of functional floodplain habitat in terms of quantity and quality of rearing habitat for pelagic species was part of the enhancement elements for BDCP (see Final EIR/EIS 3.G.3.1 Habitat Restoration and Enhancement Actions Development). Please see Master Response 22 for information regarding Mitigation.
1610	30	There is no mention of the detailed habitat improvement actions presented in the smelt, salmon, and steelhead state and federal recovery plans.	Please see Master Response 2 for further information regarding the level of detail provided in the EIR/EIS Analysis. Please see final EIR/EIS chapter 11 Alternative 4A Fish and Aquatic Resources.
1610	31	There are repeated references to adaptive management actions that will adjust habitat improvement actions of the BDCP but virtually no details on how adaptive management will actually be implemented or funded. Adaptive management programs have frequently failed throughout the nation, as have decades of adaptive management actions on dozens of failed habitat mitigation projects that were constructed in the Delta.	Collaborative science and adaptive management will support the proposed action by helping to address scientific uncertainty where it exists, and as it relates to the benefits and impacts of the construction and operations of the new water conveyance facility and existing CVP and SWP facilities. Please see Master Response 33 regarding Adaptive Management and Monitoring.
1610	32	Many of the specific habitat actions proposed in the BDCP already exist and will likely be implemented in the future without the BDCP. These actions should not be included in the BDCP's portfolio of habitat mitigation actions, but instead should be considered part of the baseline (or no-action alternative).	Habitat restoration is considered a part of the State's long-term plans for the Delta. Larger habitat restoration endeavors will be pursued primarily by California EcoRestore which is overseen by the California Resources Agency and implemented under the California Action Plan. Alternative 4A (the new preferred alternative) only includes habitat restoration measures needed for mitigation and regulatory compliance purposes.
1610	33	The conservation measures are insufficient in amount and quality of aquatic habitat to meet the goals and objectives of the BDCP.	Please see Master Response 3 regarding Purpose and Need, and please see Master Response 5 regarding BDCP Conservation Measures.
1610	34	<p>The purpose of the Habitat Conservation Planning process and subsequent issuance of Incidental Take Permits is to authorize the incidental take of threatened or endangered species, not to authorize the underlying activities that result in take. Section 9 of the Endangered Species Act of 1973, as amended (ESA), prohibits the "take" of any fish or wildlife species listed under the ESA as endangered; under Federal regulation, take of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. Take, as defined by the ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."</p> <p>In the 1982 amendments to the ESA, Congress established a provision in Section 10 that allows for the "incidental take" of endangered and threatened species of wildlife by non-Federal entities. Incidental take is defined by the ESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Section 10(a)(2)(A) of the ESA requires an applicant for an incidental take permit to submit a "conservation plan" that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will undertake to minimize and mitigate such impacts. Conservation plans under the ESA have come to be known as "Habitat Conservation Plans" or "HCPs" for short. The Bay/Delta Conservation Plan (BDCP) is proposed as such a conservation Plan. However, the BDCP fails the statutory and regulatory requirements for a Habitat Conservation Plan.</p>	Please see Master Response 45 regarding Permitting.
1610	35	The U.S. Fish and Wildlife Service (USFWS) published its final regulations for implementing the section 10 permit program in the Federal Register on September 30, 1985 (50 FR 39681-39691); National Marine Fisheries Service published final regulations for its program on May 18, 1990 (55 FR 20603). USFWS and National Marine Fisheries Service (NMFS) share joint authorities under the Endangered Species Act (ESA) for administering the Incidental Take Permit Program. Generally, the USFWS is responsible for terrestrial and freshwater	Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP or NCCP; instead the project will be covered under Section 7 of the Federal ESA and Section 2081 of California's ESA. Please see Master Response 5 and 29 for more information on compliance with the ESA and Master Response 45 for more information on permitting.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>aquatic species while NMFS is responsible for listed marine mammals, anadromous fish, and other living marine resources. Both of these agencies and the California Department of Fish and Wildlife will be responsible for approving the BDCP.</p> <p>A section 10(a)(1)(B) permit only authorizes take that is incidental to otherwise lawful activities. In this context, "otherwise lawful activities" means economic development or land or water use activities that, while they may result in take of federally listed species, are consistent with other Federal, state, and local laws. The BDCP is therefore required to be consistent with laws including, but not limited to, the federal Clean Water Act, California Water law, the California Constitution, the California Public Trust Doctrine, the California Natural Communities Conservation Planning law, and the 2009 Delta Reform Act. BDCP fails consistency on all counts.</p>	
1610	36	<p>Issuance of an incidental take permit is also a Federal action subject to section 7 of the Endangered Species Act (ESA). Section 7(a)(2) requires all Federal agencies, in consultation with the Services, to ensure that any action "authorized, funded, or carried out" by any such agency "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of critical habitat. Because issuance of a section 10 permit involves an authorization, it is subject to this provision. Although the provisions of section 7 and section 10 are similar, section 7 and its regulations introduce several considerations into the HCP process that are not explicitly required by section 10 -- specifically, indirect effects of the proposed project, effects on federally listed plants, and effects on critical habitat for listed species. Issuance of an incidental take permit is also a Federal action subject to section 7 of the ESA.</p>	<p>Please see Master Response 29 regarding the Endangered Species Act and see Master Response 45 regarding Permitting.</p>
1610	37	<p>The section 10 process is an opportunity to provide species protection and habitat conservation within the context of non-Federal development and land and water use activities. Ideally, it may also allow for the conservation and recovery of federally listed, proposed, and candidate species as well as overall biological diversity. It thus provides a mechanism for allowing economic development that will not "appreciably reduce the likelihood of the survival and recovery of the species in the wild." The BDCP is not a permissible project because it will appreciably reduce the likelihood of the survival and recovery of aquatic species in the Bay/Delta and its watershed.</p>	<p>Please see comment 1610-35.</p>
1610	38	<p>HCPs require: (1) an HCP; (2) an application form and fee; (3) an Implementing Agreement (optional, depending on Regional Director discretion); (4) a NEPA analysis, either an Environmental Assessment or EIS; publication in the Federal Register of a Notice of Receipt of a Permit Application and Notice(s) of Availability of the NEPA analysis; (6) Solicitor's Office review of the application package; (7) formal section 7 consultation; and (8) a Set of Findings, which evaluates a section 10(a)(1)(B) permit application in the context of 1-10 of permit issuance criteria found at section 10(a)(2)(B) of the ESA and 50 CFR Part 17.</p> <p>Under the Endangered Species Act [Section 10(a)(2)(A)] and Federal regulation [50 CFR 17.22(b)(1), 17.32(b)(1), and 222.22], a conservation plan submitted in support of an incidental take permit application must detail the following information:</p> <ul style="list-style-type: none"> <li>- Impacts likely to result from the proposed taking of the species for which permit coverage is requested;</li> <li>- Measures the applicant will undertake to monitor, minimize, and mitigate such impacts; the funding that will be made available to undertake such measures; and the procedures to</li> </ul>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For detailed responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5. Please see Master Response 45 regarding Permitting.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>deal with unforeseen circumstances;</p> <ul style="list-style-type: none"> <li>- Alternative actions the applicant considered that would not result in take, and the reasons why such alternatives are not being utilized; and,</li> <li>- Additional measures FWS or NMFS may require as necessary or appropriate for the purposes of the plan.</li> </ul>	
1610	39	<p>The BDCP fails to comply with federal ESA requirements.</p> <p>The BDCP fails to meet the requirements of Section 10(a)(2)(B) of the federal Endangered Species Act (ESA). In order to issue an incidental take permit (ITP) under Section 10, an HCP must demonstrate that the proposed taking "will not appreciably reduce the likelihood of the survival and recovery of the species in the wild." (16 U.S.C. [Section] 1539(a)(2)(B)(iv).) In addition, the HCP must provide assurance that there is adequate funding available to implement its terms and conditions, as well as to address any unforeseen circumstances that may arise during the life of the plan.</p> <p>The BDCP fails to fulfill these requirements. The overwhelming evidence demonstrates the BDCP will NOT adequately protect listed and threatened species and may in fact, reduce the likelihood of their survival and recovery in the wild. Further, the BDCP's "assurances" that funding is and will be available for its implementation are woefully inadequate. Despite the myriad of financial sources discussed in the BDCP, it is clear that the "adequate funding" required by the ESA and its implementing regulations has yet to be secured.</p>	See comment 1610-35.
1610	40	<p>The Plan fails to meet the standard for protecting listed species.</p> <p>The California Advisory Committee on Salmon and Steelhead, an expert advisory committee to the California Department of Fish and Wildlife (CDFW), has recommended that the CDFW director deny any incidental take permit for the BDCP under State law because the Project will contribute to the further decline of two fish species protected under both the state and federal Endangered Species Acts: the Sacramento River Winter Run and Spring Run Chinook Salmon. Notably the Committee found: "Because Sacramento River Winter Run and Spring Run Chinook Salmon are already significantly depleted and BDCP will further reduce smolt survival, the Department of Fish and Wildlife cannot make a finding that the BDCP NCCP will lead to recovery of the species." (Letter from Vivian Helliwell, Chairman, to Charlton H. Bonham, February 26, 2014 (Helliwell Letter), Exhibit A.)</p>	See comment 1610-35.
1610	41	<p>The California Advisory Committee further found that "BDCP promotes the unproven scientific hypothesis that habitat restoration can substitute for flow ... BDCP would reduce Delta outflow, which contributes to the decreases in salmon smolt revival rates modeled by BDCP." (Helliwell Letter at p. 2 &amp; n. 4.) Further, "[t]he concept of habitat restoration measures to offset impacts from increased water withdrawals from the Delta (increased "reliability") is not supported by science ..." (Helliwell Letter at p. 4.) The federal lead agencies for the BDCP EIR/EIS, the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and National Marine Fisheries Service, recently provided the California Department of Water Resources (DWR) with comments on the Second Administrative Draft EIR/EIS. The U.S. Environmental Protection Agency, U.S. Army Corps of Engineers and the State Water Resources Control Board have also provided comments.</p>	<p>Flow- and habitat-related effects of the BDCP alternatives were analyzed in the RDEIR/EIS. For more information regarding the updated CALSIM II modeling, including the new preferred alternative please see Appendix 11C of the FEIR/EIS. For more information regarding Environmental Commitments please see Appendix 3B of the FEIR/EIS.</p> <p>Please see Master Response 5 for a discussion on how the SWRCB and CDFW's flow analysis/reports were considered in the BDCP. Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. Please also see Appendix C of the RDEIR/SDEIS Supplemental Modeling Requested by State Water Resources Control Board Related to Increased Delta Outflows.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1610	42	Federal agency comments continue to highlight serious problems with the BDCP and its potential to harm key fish species. The U.S. Environmental Protection Agency noted that freshwater flow is possibly the best tool to improve fish population responses and to protect aquatic life prior to the completion of any planned restoration projects. Therefore, in recognition of the broad scientific agreement that existing Delta outflow conditions are insufficient for protecting the aquatic ecosystem and multiple fish species, the U.S. EPA found that increased freshwater flows and aquatic habitat restoration are needed to restore ecosystem processes in the Bay Delta and protect Threatened & Endangered fish populations.	Please see Chapter 11 Alternative 4A Fish and Aquatic Resources including Impact AQUA-93: Effects of Water Operations on Entrainment of Steelhead, AQUA-39 Effects of Water Operations on Entrainment of Chinook Salmon (Winter-run ESU). The model results in Final EIR/EIS for Alternative 4A indicate that flows and export volumes would increase in wet, above normal, and below normal years between December and March and in June and July as compared to the Existing Conditions and No Action Alternative. Export rates and volumes would not substantially change in April and May. During the September through December period in all year types and in February and March in wet and above normal year types, Delta outflow would increase under Alternative 4A as compared to Existing Conditions. However, Delta outflow would be similar or less in most conditions except in October in all water year types as compared to the No Action Alternative.
1610	43	The conclusion that the preferred alternative results in increased sea water intrusion in all years in addition to conclusions about EC (electrical conductivity) levels in the southern Delta (see page 8-425 and -426), indicates a high likelihood for degradation in both the quality and quantity of open water aquatic habitats (low salinity zones and migratory corridors for salmonids). The U.S. Environmental Protection Agency expressed uncertainty that the necessary quantitative estimates or details were available to support the conclusion that ongoing operation of new Delta conveyance would have no adverse effect on tidal freshwater emergent wetland natural community. It questioned how the changes in flow would not have an adverse affect on the habitat of species that depend on it.	Please see Master Response 14 regarding Water Quality and Chapter 8 of the Final EIR/EIS. The EIR/EIS fully addresses the potential water quality effects of the California WaterFix on beneficial uses upstream of the Delta, in the Delta and downstream of the Delta. Most of the water quality constituent effects would not be significant. Where significant effects are identified impacts are reduce to less than significant levels with mitigation (i.e electrical conductivity).
1610	44	The National Marine Fisheries Service (NMFS) also noted several deficiencies in the proposed project. Specifically, the section related to the Delta was found by NMFS to provide an inadequate level of analysis for a project that proposes to put major new diversion intakes in the main migratory route of several listed species. Analysis of impacts for fish passing the intakes and using the migratory corridors downstream of the proposed intakes should be a major focus of this document. NMFS noted that the Effects Analysis lacked a transparent method of assessing how the diversions and resulting flow alterations would impact juvenile survival, existing wetland benches, and predation related mortality.	Please see Master Response 9, Cumulative Impact Analysis. The Lead Agencies acknowledge that uncertainty is inherent in any planning effort of this geographic and temporal scale. However, DWR strived to use the best available science throughout the effects analysis, consistent with the requirements of the ESA. Additionally, the official public review process for the proposed project provides an opportunity for formal public comment on the proposed project and project alternatives. Public and agency comments on the public draft have led to further refinement of the proposed project, as evidenced in the RDEIR/SDEIS. Also see 3.F.12 Intake Locations Analyzed in the EIR/EIS.
1610	45	The U.S. Fish and Wildlife Service (USFWS) was critical of the project. Specifically, USFWS found that the description and analysis of alternative 4 (Proposed Action) should reflect agreement that the "high outflow scenario" version of CM1 will be permitted as the initial BDCP operations. The USFWS questioned whether there was sound scientific information that supports the theory that increased Delta outflows are not needed. The BDCP modeled Delta outflow results. Despite their "similar" modeling structure, the biological models for longfin smelt predicted declines in longfin smelt abundance (Stevens and Miller 1983; Jassby et al. 1995; Rosenfield and Baxter 2007; Thomson et al. 2010). Rather than reporting these results, the effects were summarized. The predicted declines were labeled only as "minor". In contrast, the USFWS determined that longfin smelt is warranted for listing under the ESA, with any additional threats or further declines in the status of the species warranting immediate and careful evaluation. The Service posited that if evidence existed to show that increased Delta outflows were not needed, and that habitat restoration alone would be able to restore ecosystem processes and protect fish species, that that information was conspicuously lacking.	Appendices 11A and 11B of the DEIR/EIS include descriptions of the declines of covered and noncovered fish species. For additional information regarding beneficial use of water, please see master response 34. The model results in Final EIR/EIS for Alternative 4A indicate that flows and export volumes would increase in wet, above normal, and below normal years between December and March and in June and July as compared to the Existing Conditions and No Action Alternative. Export rates and volumes would not substantially change in April and May. During the September through December period in all year types and in February and March in wet and above normal year types, Delta outflow would increase under Alternative 4A as compared to Existing Conditions. However, Delta outflow would be similar or less in most conditions except in October in all water year types as compared to the No Action Alternative.
1610	46	Although the Service acknowledged that CMs 2 and 4 could plausibly contribute to longfin smelt (given the timing of their reproduction and their primary distribution in the estuary), it	Please see Master Response 5 for a discussion about BDCP Conservation Measures. Restoration Opportunity Areas (ROAs) are for conservation projects for all alternatives except 2A, 4A, and 5D. Alternative 2A, 4A, and

DEIRS Ltr#	Cmt#	Comment	Response
		found that notion that habitat restoration could benefit the estuary, as outlined in the other CMs, was unsupportable. Specifically, it noted that if CMs 2 and 4 were to improve conditions for longfin smelt, it would not be in Suisun Bay, it would be in the ROAs (Restoration Opportunity Areas) themselves. The implication that restored habitats "would" provide a food subsidy to the open water bays in which most longfin smelt rear, was neither supportable or substantially uncertain. San Joaquin Basin salmonid populations "continue to decline and [U.S. Fish and Wildlife] believes that flow increases are needed to improve salmonid survival and habitat." [Footnote 22: USFWS Staff BDCP Progress Assessment, April 2013, and USFWS May 23, 2011 Phase I Scoping Comments to SWRCB.]	5D are project-level analysis and therefore, are anticipated to go forward without additional formal environmental review see 3b.2.21 CEQA and NEPA Compliance for BDCP-related Conservation Projects. And please see Master Response 2, Project Level vs. Program Level for more information.
1610	47	Several other agencies noted problems with the draft BDCP. The National Academy of Sciences Natural Resource Council Committee on Sustainable Water Management in California's Bay Delta Report noted that "...sufficient reductions in outflow due to diversions would tend to reduce the abundance of these organisms ["these organisms" = 8 Bay Delta aquatic species at various trophic levels]." [Footnote 23: National Academy of Sciences Natural Resource Council Committee on Sustainable Water Management in California's Bay-Delta (2012) Report, pg. 60] "Thus, it appears that if the goal is to sustain an ecosystem that resembles the one that appeared to be functional up to the 1986-93 drought, exports of all types will necessarily need to be limited in dry years, to some fraction of unimpaired flows that remains to be determined." [Footnote 24: Id. at 105.] Inadequate flow to support fish and their habitats was noted to be "directly and indirectly linked to many stressors in the San Joaquin river basin and is a primary threat to steelhead and salmon." [Footnote 25: NMFS Progress Assessment and Remaining Issues Regarding the Administrative Draft BDCP Document, and NMFS February 4, 2011 Phase I Scoping Comments to SWRCB.]	Please see Master Response 3, Purpose and Need. As noted in 2628-4, the SWRCB did request additional outflow be considered in an alternative analyzed in this EIR/EIS. The results are summarized in Appendix C of the RDEIR/SDEIS. In addition, the proposed project (Alternative 4A) does include additional spring outflow as compared to the No Action Alternative. The range of alternatives analyzed in the EIR/EIS includes Alternative 8 which considers the highest ranges of Delta outflow that can be accomplished through operations of SWP and CVP water rights and in a manner that will protect cold water pools in the upstream SWP and CVP reservoirs. Please see Master Response 8 for information on how SWRCB and CDFW's flow analysis/reports were considered in the BDCP.
1610	48	In order to determine whether or not the BDCP meets the standards required for an incidental take permit under Sections 7 and 10 for listed aquatic species in the Bay/Delta, it is necessary to examine the existing environmental conditions in the Bay/Delta. The most complete examination of present conditions for these public trust resources in the estuary took place as a requirement of the 2009 Delta Reform Act after hearings conducted by the California State Water Resource Control Board. The State Board, after completing extensive hearings, found that  "The Sacramento-San Joaquin Delta (Delta) is a critically important natural resource for California and the nation. It is both the hub of California's water supply system and the most valuable estuary and wetlands on the western coast of the Americas. The Delta is in ecological crisis, resulting in high levels of conflict that affect the sustainability of existing water policy in California. Several species of fish have been listed as protected species under the California Endangered Species Act (CESA) and under the federal Endangered Species Act (ESA). These two laws and other regulatory constraints have restricted water diversions from the Delta in an effort to prevent further harm to the protected species."	Please see Master Response 45 regarding Permitting, and see Master Response 31 regarding Compliance with the Delta Reform Act. The proposed project is going to mitigate for impacts and restore habitat for fish and wildlife listed in Section 4.3.7 and 4.3.8 of the RDEIR/SDEIS. Under Section 7 of the Endangered Species Act (ESA), federal agencies whose actions may impact listed species are required to consult with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS), as appropriate, prior to taking any such action to ensure the action is not likely to jeopardize species listed under the ESA or result in destruction or adverse modification of critical habitat. At the end of consultation, USFWS and/or NMFS will complete a biological opinion, setting forth an opinion detailing how the agency action affects the species or its critical habitat.
1610	49	In November 2009, California enacted a comprehensive package of four policy bills and a bond measure intended to meet California's growing water challenges by adopting a policy of sustainable water supply management to ensure a reliable water supply for the State and to restore the Delta and other ecologically sensitive areas. One of these bills, Senate Bill No. 1 (SB1) (Stats. 2009 (7th Ex. Sess.) Ch. 5, [Section] 39) contains the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act), Water Code section 85000 et seq. The Delta Reform Act establishes a Delta Stewardship Council (Council), tasked with developing a comprehensive, long-term management plan for the Delta, known as the Delta Plan, and	Please see Master Response 31 regarding Compliance with the Delta Reform Act. As described in Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. The proponents of the proposed project intend to fully comply with the Delta Reform Act, to monitor the Delta Plan litigation and future Delta Plan amendments, and to consider filing a certification of consistency at the appropriate time.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>providing direction to multiple state and local agencies that take actions related to the Delta. The comprehensive bill package also sets water conservation policy, requires increased groundwater monitoring, and provides for increased enforcement against illegal water diversions.</p> <p>The Delta Reform Act required the State Water Board to use a public process to develop new flow criteria for the Delta ecosystem. So, in 2010 the State Water Board considered the testimony presented during the Board's informational proceeding to develop flow criteria and to support the following summary conclusions.</p>	
1610	50	<p>Flow in the Delta "is one of the most important components of ecosystem function." [Footnote 26: Testimony of the U.S. Fish &amp; Wildlife Service, State Water Resources Control Board 2010 flow hearing] Thus, acceptable habitat restoration requires adequate physical parameters (flow, residence time, variability, etc.), chemical parameters (salinity, temperature, turbidity, chemical constituents, etc.), and nutrients to support renewable fisheries. The effects of non-flow changes in the Delta ecosystem, such as nutrient composition, channelization, habitat, invasive species, and water quality, also need to be addressed and integrated with flow measures. The California Department of Fish and Wildlife noted in 2010 that "...current Delta water flows for environmental resources are not adequate to maintain, recover, or restore the functions and processes that support native Delta fish." [Footnote 27: Executive Summary, Cal. Department of Fish and Wildlife (2010) Quantifiable Biological Objectives and Flow Criteria, pg. 1] Despite these complexities, and the current deficiency of flow, the BDCP's answer to fixing the Delta is simply that habitat restoration can substitute for flow.</p>	Please see response to comment 1610-49. In addition, please see Master Response 14, Water Quality.
1610	51	<p>Flow and physical habitat interact in many ways, but they are not interchangeable. Since the CVP and SWP have been in effect, historic flows have been below the necessary amount to preserve aquatic health. Historic unimpaired flows over the last 18 to 22 years have been about 50% on average from April through June for Sacramento River inflows; approximately 30% in drier years to almost 100% of unimpaired flows in wetter years for Delta outflows; and approximately 20% in drier years to almost 50% in wetter years for San Joaquin River inflows. Flow modification is one of the immediate actions available although the links between flows and fish response are often indirect and are not fully resolved. In developing its flow criteria, the State Water Board reviewed the life history requirements of the following pelagic and anadromous species:</p> <ul style="list-style-type: none"> <li>- Chinook Salmon (various runs)</li> <li>- American Shad.</li> <li>- Longfin Smelt</li> <li>- Delta Smelt</li> <li>- Sacramento Splittail</li> <li>- Starry Flounder</li> <li>- Bay Shrimp</li> </ul>	The amount of water diverted is dependent upon water rights priorities and the need to meet environmental flow and quality requirements. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>- Zooplankton</p> <p>The flow criteria needed to protect public trust resources are more than just the sum of each species-specific flow need.</p>	
1610	52	<p>The State Water Board considered the following issues to make its flow criteria determinations:</p> <ul style="list-style-type: none"> <li>- Variability, flow paths, and the natural hydrograph</li> <li>- Floodplain activation and other habitat improvements</li> <li>- Water quality and contaminants</li> <li>- Cold water pool management</li> <li>- Adaptive management</li> </ul>	<p>Please see response to comment 1610-49. Please see Master Response 14 for Water Quality, Master Response 33 Adaptive Management, and Master Response 3 Purpose and Need. As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions.</p>
1610	53	<p>The flow criteria were also intended to inform the BDCP and the California NCCP, with the BDCP being a multispecies conservation plan developed pursuant to the ESA and the State Natural Community Conservation Planning Act (NCCPA), administered by the USFWS and the NMFS and the DFG, respectively.</p>	<p>Please see response to comment 1610-49 and 1610-5.</p>
1610	54	<p>The Flow Criteria that came out of the 2010 State Board hearings addressed flow necessary to preserve the attributes of a natural variable system to which native fish species are adapted. Many of the criteria developed by the State Water Board were crafted as percentages of natural or unimpaired flows. The criteria included the following recommendations for necessary Delta flow:</p> <ul style="list-style-type: none"> <li>- 75% of unimpaired Delta outflow from January through June;</li> <li>- 75% of unimpaired Sacramento River inflow from November through June; and</li> <li>- 60% of unimpaired San Joaquin River inflow from February through June.</li> </ul> <p>Although the State Water Board noted that these criteria should not be interpreted as precise flow requirements for fish under current conditions, they do reflect the general timing and magnitude of flows under the circumstances of the flow criteria report. Other criteria include: increased fall Delta outflow in wet and above normal years; fall pulse flows on the Sacramento and San Joaquin Rivers; and flow criteria in the Delta to help protect fish from mortality in the central and southern Delta resulting from operations of the State and federal water export facilities. The report also includes determinations regarding variability and the natural hydrograph, floodplain activation and other habitat improvements, water quality and contaminants, cold water pool management, and adaptive management. The determination criteria should reflect the frequency, duration, timing, and rate of change of flows, and not just volumes or magnitudes. Accordingly, whenever possible, the criteria specified above are expressed as a percentage of the unimpaired hydrograph. Inflows should generally be provided from tributaries to the Delta watershed in proportion to their contribution to unimpaired flow unless otherwise indicated, and studies and demonstration projects for, and implementation of, floodplain restoration, improved connectivity and passage, and other habitat improvements should proceed to provide additional protection of public trust uses and potentially allow for the reduction of flows otherwise needed to</p>	<p>Please see response to comment 1610-49 and 1610-52. The potential adverse effect of Alternative 4A would be minimized through the bypass flow criteria and real-time operations, as well as inclusion within Alternative 4A of specific important Environmental Commitments. These include Environmental Commitment 6 Channel Margin Enhancement to offset loss of channel margin habitat to the NDD footprint and far-field (water level) effects, Environmental Commitment 15 Localized Reduction of Predatory Fishes to limit predation potential at the NDD and Environmental Commitment 16 Nonphysical Fish Barriers to reduce entry of spring-run Chinook salmon juveniles into the low-survival interior Delta (please see Chapter 11 Alternative 4A Fish and Aquatic Resources).</p>

DEIRS Ltr#	Cmt#	Comment	Response
		protect public trust resources in the Delta.	
1610	55	<p>During the State Water Resources Control Board Flow Criteria Hearing in 2010, the Department of the Interior recommended flow criteria for both Sacramento and San Joaquin River inflows, noting that "flows that mimic the natural hydrograph will benefit native fishes in the Delta and should be used in determining magnitude and timing of needed flows for Delta ecosystem." [Footnote 28: 2010 SWRCB Flow Criteria Report, p. 55. See also Attachment A -- Draft Combined Criteria Tables] The Department of Interior opined that "[m]imicking the natural hydrograph may provide flow regimes that change habitat conditions to benefit native fish and flush some nonnatives out of the system (as occurred on Putah Creek). [Footnote 29: Id. at 26. See also Attachment A -- Draft Combined Criteria Tables] Despite this recommendation, the BDCP plan alters the hydrographs of Sacramento more than current alterations exhibit. Sacramento River at Rio Vista flows reduced relative to unimpaired flow (UF) hydrograph in February through June from North Delta Intakes' diversions in W and AN years. Average annual flows will decrease from 66% of UF to 56% of UF under BDCP. (BDCP EIS/EIR: Attachment 1). Further, the BDCP plan alters the hydrographs of San Joaquin River more in some spring and summer months than current alterations. (BDCP EIS/EIR: Attachment 1). San Joaquin River flows at Vernalis are a similar percentage of unimpaired flow except in June and July. [Footnote 30: Attachment A -- Draft Combined Criteria Tables] Average annual flows under BDCP will be 47 to 49% of unimpaired flows, which is similar to current flows at 46%. [Footnote 31: Id.]</p>	Please see response to comment 1610-49 and comment 1610-54.
1610	56	<p>The Department of the Interior gave net Delta outflow criteria comments at the 2010 Flow Criteria proceedings. The Department of Interior found that "Delta outflow, Delta inflows, and X2 position are highly correlated," and that Delta outflow was reduced 34 percent from unimpaired flow conditions with a hydrograph peak shifted from winter/spring to summer/early fall. [Footnote 32: Attachment A -- Draft Combined Criteria Tables.] Despite these recommendations, the BDCP alters the hydrographs of Delta outflow even more than current alterations indicate, and would reduce Delta outflows relative to unimpaired flow in February through August by 5-12%. [Footnote 33: BDCP Attachment 1, see also Attachment A -- Draft Combined Criteria Tables] Average annual flows would decrease even further, from 58% unimpaired flow to 56% unimpaired flow. [Footnote 34: Id.]</p> <p>Recommendations regarding X2 were also made by the Department of the Interior in the 2010 Flow Criteria hearings. The Department of the Interior found that X2 objectives are designed to restore a more natural hydrograph and salinity pattern by requiring maintenance of the low salinity zone at a specified point and duration based on unimpaired flow conditions. Delta outflows and inflows and the X2 position are highly correlated, and since Delta export operations began, X2 and Delta outflow have been "highly altered." [Footnote 35: 2010 SWRCB Flow Criteria Report, pg. 19. See also Attachment A -- Draft Combined Criteria Tables] Again, despite these findings and recommendations, the BDCP moves X2 into an area under the twin tunnels operations. [Footnote 36: BDCP Attachment 3. See also Attachment A -- Draft Combined Criteria Tables] Annual average X2 would decrease from 86 to 83 km, but would remain upstream of Collinsville. [Footnote 37: Id.] Old and Middle River flow recommendations made by the Department of the Interior were also not followed in the BDCP.</p>	Please see response to comment 1610-49. As described in Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. Information from that report included "determinations of flow criteria for the Delta ecosystem to protect public trust resources. The report makes clear, however, that the flow criteria do not consider the balancing of public trust resource protection with public interest needs for water. The flow criteria also did not consider other public trust resource needs such as the need to manage cold-water resources in reservoirs tributary to the Delta. Nonetheless, the flow determinations contained in the Delta Flow Criteria Report, together with recent scientific conclusions of other State and federal agencies, including the Department of Fish and Wildlife, National Marine Fisheries Service, and the Interagency Ecological Program provide a useful guide to establish one side of a reasonable range of alternatives" (State Water Resources Board letter dated April 19, 2011). The information in the flow criteria report was used to inform the development of the proposed project. In addition please see 5D.3 Cross-Delta Transfers Spreadsheet Assumptions of the Final EIR/EIS.
1610	57	<p>The Department of the Interior noted that Old Middle River (OMR) flow is a hydrodynamic metric that best characterized effects of exports on entrainment of pelagic fish in the Delta. [Footnote 38: Attachment A -- Draft Combined Criteria Tables] Entrainment increases as</p>	Please see response to comment 1610-49. Please see Master Response 28, Operational Criteria. The existing operation of the SWP and CVP pumps in the south Delta can cause reversals in river flows, potentially altering salmon migratory patterns. The new system would reduce the ongoing physical impacts associated

DEIRS Ltr#	Cmt#	Comment	Response
		OMR flows grow more negative (a larger upstream flow). The Department of the Interior opined that effects could be minimized by managing OMR flows during critical spawning and rearing periods. [Footnote 39: Id.] However, the BDCP draft would only lower reverse OMR flows in wet and above normal years, and would increase reverse flows in drier years as South Delta export pumps are more heavily used. [Footnote 40: Id.] These increased reverse flows would directly lead to greater delta smelt and longfin smelt entrainment risks. [Footnote 41: Id.]	with sole reliance on the southern diversion facilities and allow for greater operational flexibility to better protect fish. Minimizing south Delta pumping would provide more natural east–west flow patterns (RDEIR/SDEIS Section 4.1). Overall reductions in OMR reverse flows under all flow scenarios for the proposed project would be beneficial with corresponding increase in net positive downstream flows, during the migration period of Chinook salmon through the interior Delta channels (Appendix B, Supplemental Modeling for Alternative 4A, Section B.7 (RDEIR/SDEIS Section 4.3.7). Operations would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as described in the 2008 and 2009 BiOps (RDEIR/SDEIS Executive Summary ES.2.2).
1610	58	The flow criteria report went on to note that the Central Valley and San Francisco Regional Water Quality Control Boards should continue developing Total Maximum Daily Loads (TMDLs) for all listed pollutants and adopting programs to implement control actions. The Central Valley Regional Water Quality Control Board should require additional studies and incorporate discharge limits and other controls into permits, as appropriate, for the control of nutrients and ammonia. Temperature and water supply modeling and analyses should be conducted to identify conflicting requirements to achieve both flow and cold water temperature goals, with a strong science program and a flexible management regime noted as critical to improving flow criteria. The report suggested that the State Water Board should work with the Council, the Delta Science Program, BDCP, the Interagency Ecological Program (IEP), and others to develop the framework for adaptive management that could be relied upon for the management and regulation of Delta flows. As physical changes occur to the environment and scientists' understanding of the needs of species improves, the long-term flow needs are expected to change. Actual flows should be informed by adaptive management.	Please see response to comment 1610-49. Please see Master Response 45 regarding Permitting, Master Response 37 regarding Water Supply, and 33 for Adaptive Management and Monitoring. The law requires that action plans, or TMDLs, be developed to monitor and improve water quality. TMDL is defined as the sum of the individual waste load allocations from point sources, load allocations from nonpoint sources and background loading, plus an appropriate margin of safety. A TMDL defines the maximum amount of a pollutant that a water body can receive and still meet water quality standards. TMDLs can lead to more stringent National Pollutant Discharge Elimination System (NPDES) permits (CWA Section 402) see Chapter 8 of the Final EIR/EIS for Water Quality.
1610	59	Restoring environmental variability in the Delta is fundamentally inconsistent with continuing to move large volumes of water through the Delta for export. Unfortunately, past changes in the Delta may have influenced migratory cues for some fishes. These cues are further scrambled by a reverse salinity gradient in the south Delta. Therefore, the report found it important to establish seaward gradients and create more slough networks with natural channel geometry, thereby achieving a variable more complex estuary requires establishing seasonal gradients in salinity and other water quality variables and diverse habitats throughout the estuary. These goals would, in turn, encourage policies which establish internal Delta flows that create a tidally-mixed upstream-downstream gradient (without cross-Delta flows) in water quality. Thus, the continued through-Delta conveyance is likely to continue the need for in-Delta flow requirements and restrictions to protect fish within the Delta. The drinking and agricultural water quality requirements of through-Delta exports, and perhaps even some current in-Delta uses, are at odds with the water quality and variability needs of desirable Delta species. The positive changes resulting from improved flow or flow patterns will benefit humans as well as fish and wildlife. The Delta ecosystem is likely to dramatically shift within 50 years due to large scale levee collapse, with these changes likely to promote a more variable, heterogeneous estuary, which would be better (or, at least, not worse) for desirable estuarine species.	Please see response to comment 1610-49. The project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies. It is important to note that the project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Please see Master Response 34, Beneficial Use of water.
1610	60	CESA and the federal ESA generally prohibit the "take" of species protected pursuant to the acts. Both acts contain provisions that allow entities to seek approvals from the resources agencies, which approvals allow limited take of protected species under some circumstances. The BDCP is intended to meet all regulatory requirements necessary for U.S. Fish and Wildlife Service and National Marine Fisheries Service to issue Incidental Take	The bibliography and literature citations provided by the commenter are noted and will be considered. Note that Mirant Corporation is no longer participating in the BDCP or the current proposed project (Alternative 4A). The 2013 BDCP describes the requested take authorization for each of the covered species under the ESA and NCCP Act in Chapter 5. This evaluation takes into account the implementation of all conservation measures described in Chapter 3 of the public draft BDCP, including CM1 (i.e., the water conveyance system

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Permits to allow incidental take of all proposed covered species as a result of covered activities undertaken by DWR, certain SWP contractors, and Mirant Corporation, and to issue Biological Opinions under the ESA to authorize incidental take for covered actions undertaken by USBR and CVP contractors. The BDCP is also intended to address all of the requirements of the NCCPA for aquatic, wetland, and terrestrial covered species of fish, wildlife, and plants and Delta natural communities affected by BDCP actions and is intended to provide sufficient information for DFG to issue permits under the CESA for the taking of the species proposed for coverage under the BDCP." This information fails to inform the evaluation of BDCP's CM1, the Delta tunnels program. Voluminous information, given by state and federal agency experts, was presented and evaluated at the hearing. It is clear that BDCP rejected or ignored the conclusions from scientists, experts, and the responsible agencies' findings. We [C-WIN, CSPA, and AquAlliance] have therefore prepared a bibliography that identifies most of the scientific studies on the ecological health of the Bay/Delta by scientists in their respective fields over the past 30 years. [Footnote 42: Attachment B -- Bibliography] We suggest that this bibliography is used when BDCP reviews these comments, and that it be considered when the responsible agencies determine whether they can legally permit CM-1 as a habitat conservation plan under state and federal law.</p>	<p>proposed at the time). Please see Master Response 29 for more information regarding the Endangered Species Act.</p> <p>Please also see Master Response 17 regarding the biological impacts of the proposed project. And see Master response 45 regarding permitting, Master Response 5 for a discussion about CM1, and Master response 42 for a discussion on what happens to public comments.</p>
1610	61	<p>The California Department of Fish and Wildlife has conducted surveys of the Delta's pelagic fish species since 1959. The Fall Midwater Trawl (FMWT) survey was initiated in 1967, the year the State Water Project began exporting water from the Delta. It samples 122 stations each month from September to December and the data is used to calculate an annual abundance index of pelagic species. These stations range from San Pablo Bay upstream to Stockton on the San Joaquin River, Hood on the Sacramento and the Sacramento Deep Water Ship Channel. [Footnote 43: <a href="http://www.dfg.ca.gov/delta/projects.asp?ProjectID=FMWT">http://www.dfg.ca.gov/delta/projects.asp?ProjectID=FMWT</a>]</p> <p>The Summer Towntnet Survey was begun in 1959 and samples striped bass and delta smelt at 32 stations, ranging from eastern San Pablo Bay to Rio Vista on the Sacramento River and to Stockton on the San Joaquin River. Surveys begin in early June and continue on alternate weeks through August and the data is used to calculate an abundance index. [Footnote 44: <a href="http://www.dfg.ca.gov/delta/projects.asp?ProjectID=TOWNET">http://www.dfg.ca.gov/delta/projects.asp?ProjectID=TOWNET</a>] The annual abundance indices document the continued one to two magnitude decline of the entire spectrum of native pelagic species in the estuary. The same magnitude declines hold true for the native lower trophic orders that comprise the base of the food web.</p> <p>Central Valley anadromous fisheries have also not fared well and are far below the doubling levels mandated some 22 years ago by the Central Valley Project Improvement Act, California Water Code and California Fish and Game Code. [Footnote 45: <a href="http://www.fws.gov/stockton/afrrp/Documents/Doubling_goal_graphs_020113.pdf">http://www.fws.gov/stockton/afrrp/Documents/Doubling_goal_graphs_020113.pdf</a>] For example, winter-run, spring-run, Sacramento fall-run and San Joaquin fall-run Chinook salmon have declined to 5.7, 20, 31 and 25.5 percent, respectively, of legally mandated population levels. The BDCP proposes no accurate, detailed, viable proposal to respond to this large-scale decline.</p>	<p>The commenter does not specifically raise issues concerning the 2013 draft EIR/EIS or the 2015 RECIRC; however, please see Master Response 17 for Biological Resources and Master Response 5 BDCP for more information.</p>
1610	62	<p>[ATT 1: Survey from Department of Fish and Wildlife, Percent Decline in Delta Fish Population Abundance Indices in Fall and Summer 1967 v. 2013.]</p>	<p>The commenter does not specifically raise issues concerning the 2013 draft EIR/EIS or the 2015 RECIRC; however, please see Master Response 17 for Biological Resources and Master Response 5 BDCP for more information.</p>

DEIRS Ltr#	Cmt#	Comment	Response
			This comment describes an attachment to the comment letter and as referenced in the comment letter, addressed in that response herein.
1610	63	<p>The BDCP fails to adequately discuss the operation of the facility.</p> <p>The BDCP describes itself as a project proposed by the State, through DWR, and being owned and operated by the State. Reading the document, it is easy to get the impression that the only difference between existing conditions and the operation of Conservation Measure [CM] 1, once constructed, is a different place for diverting State Water Project (SWP) water. This, perhaps, is one of the most misleading aspects of the BDCP.</p> <p>The purported benefits of CM 1 include the reduction in entrainment of fish in the south Delta that currently result from pumping operations in the south Delta, along with certain reverse flow conditions that occasionally result from south Delta pumping operations. To reduce or eliminate those conditions, the United States Bureau of Reclamation (USBR) must move Central Valley Project (CVP) water through the new north Delta facilities. In addition to this reality, BDCP modeling reveals that there will be significant operational changes at upstream reservoirs, including reservoirs for the CVP.</p> <p>The BDCP fails to adequately discuss the nature and purpose of those changes and fails to discuss the impacts associated with those changes. The BDCP also fails to adequately describe how the Section 7 (consultation) process could impact the BDCP and the water supply expectations that form the water supply side of the BDCP. For example, the BDCP fails to adequately discuss the current Coordinated Operations Agreement (COA) between the state and federal government and any changes to the COA that will be necessitated by the BDCP. The BDCP's failure to reveal or discuss changes in upstream operations also prevents adequate consideration of environmental impacts in the DEIR/EIS -- a fatal flaw in those documents as well.</p> <p>The BDCP must be revised to discuss the nature of the relationship between the BDCP and the operation of various CVP facilities, including upstream reservoirs and federal pumping facilities in order to provide an understanding of likely changes needed to the COA. Additionally, the BDCP must be revised to discuss how future Section 7 consultations could impact the underlying assumptions in the BDCP. A thorough discussion of these issues is necessary so the public can understand how the impacts might differ between the SWP and CVP and whether there will be any certainty in the operations of the CVP.</p>	<p>The operational effects of the alternatives, including Alternative 4A, are disclosed in Chapters 5 and 11. The operational criteria described for each alternative, includes a description of how the existing south Delta export facilities, the proposed north Delta facilities, and other CVP and SWP Delta facilities will be used. The effects of these Delta operational changes are evaluated for the entire CVP and SWP. In addition, please see Master Response 28 for Operational Criteria.</p> <p>The COA was established in 1986 to coordinate rules between DWR and Reclamation operations of the SWP and CVP such that each obtains its share of water flowing into the Delta and bears its share of obligations to protect the other beneficial uses of water in the Delta and Sacramento Valley as defined by regulatory requirements (see Chapter 1 Introduction of the Final EIR/EIS. The alternatives do not include changes to COA or other changes in the operating criteria outside of the Delta. Although some alternatives do cause changes in upstream reservoir operations, the preferred alternative, 4A, does not result in meaningful changes in reservoir operations. The reservoirs would continue to be operated in compliance with existing regulations, including the NMFS 2009 BiOp.</p> <p>See Chapter 30, Growth Inducement and Other Indirect Effects regarding SWP and CVP service areas that may be affected by implementation under all the action alternatives.</p> <p>The Section 7 consultation process is currently underway, and no ROD will be issued until the completion of that consultation process. Under Alternative 4A DWR and Reclamation remain lead agencies, but NMFS and USFWS do not have a permitting role therefore these two agencies assumed roles as cooperating agencies for purposes of NEPA review of the RDEIR/SDEIS and the FINAL EIR/EIS.</p> <p>For more information regarding permitting please see Master Response 45.</p> <p>Please see Master Response 30 regarding Modeling, and Master Response 5 regarding CM1.</p>
1610	64	<p>The BDCP does not comply with Delta Reform Act requirements.</p> <p>The Sacramento-San Joaquin Delta Reform Act of 2009 contained a specific mandate for the BDCP. (Wat. Code, [Section] 85320.) Unless the BDCP met specified criteria, the BDCP would not be eligible for state funding. (Wat. Code, [Section] 85320(b).) Among those criteria are the requirements that BDCP include a comprehensive review and analysis of all of the following:</p> <p>- A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of Section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and</p>	<p>Please see Master Response 31 regarding Compliance with the Delta Reform Act. As described in Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. Information from that report included "determinations of flow criteria for the Delta ecosystem to protect public trust resources. The Delta Plan is currently the subject of litigation which has arisen since the issuance of the 2015 RDEIR/SDEIR and which could affect the legal requirements and/or implementation of the Delta Plan. On June 24, 2016, Sacramento Superior Court Judge Michael P. Kenny ruled that the Delta Plan was invalidated (JCCP 4758), pending the Council's remedying of three specific deficiencies identified by the Court. Thus, the status of the Delta Plan and the Council's consistency certification process remain unclear during the pendency of the litigation, including appeals. The proponents of the proposed project intend to fully comply with the Delta Reform Act, to monitor the Delta Plan litigation and future Delta Plan amendments, and to consider filing a certification of consistency at the appropriate time.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses.</p> <ul style="list-style-type: none"> <li>- A reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives and including further capacity and design options of a lined canal, an unlined canal, and pipelines;</li> <li>- The potential effects of climate change, possible sea level rise up to 55 inches, and possible changes in total precipitation and runoff patterns on the conveyance alternatives and habitat restoration activities considered in the environmental impact report;</li> <li>- The potential effects on migratory fish and aquatic resources;</li> <li>- The potential effects on Sacramento River and San Joaquin River flood management;</li> <li>- The resilience and recovery of Delta conveyance alternatives in the event of catastrophic loss caused by earthquake or flood or other natural disaster.</li> </ul> <p>While the BDCP appears to remain in development, it appears clear that the BDCP will not include a comprehensive review and analysis of flows necessary for recovering the Delta ecosystem, one of the co-equal goals, and restoring fisheries. As discussed above, while the BDCP does mention alternatives that DWR considered, the BDCP does not include a comprehensive review and analysis of those alternatives, as required by the Delta Reform Act. The BDCP also fails to include an appropriate analysis of the impacts of climate change on the system. While the BDCP recognizes that climate change will occur, it fails to discuss the likely reaction (operational and regulatory) and fails to adequately discuss and analyze the impacts of climate change on restoration activities in the Delta. And while effects on migratory fish and aquatic resources are addressed, they are not addressed adequately, as demonstrated by the comments of the Delta Independent Science Review Panel in its review of the BDCP Effects Analysis. (see Delta Science Program Independent Review Panel Report, BDCP Effects Analysis Review, Phase 3, March 2014 ("Delta Science Program Report"), Exhibit B.)</p>	<p>Please see Master Response 4 regarding Alternative Development.</p> <p>Please see Master Response 19 regarding Climate Change. The California Water Action Plan recognizes that all Californians have a stake in the future of our state’s water resources, and that a series of actions are needed to comprehensively address the water issues before us. The five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species — all amid the uncertainty of drought and climate change. For more information regarding future developments of the California Action Water Plan please follow <a href="http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf">http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf</a>. Future committees for the Proposed Project implementation may provide future opportunities for innovative input as well.</p> <p>Please see Appendix 3E, Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies, of the Public Draft EIR/EIS for discussion of potential consequences of an earthquake to exports under a No Action scenario.</p> <p>Please see Master Response 16 for more information regarding seismic impacts.</p>
1610	65	<p>The BDCP lacks an adequate and reliable source of funding.</p> <p>Section 10 of the ESA requires the United States Fish and Wildlife Service (USFWS) to find that the applicant for an incidental take permit will ensure that sufficient funding be available to implement an HCP. (Southwest Center for Biological Diversity v. Bartel (S.D. Cal. 2006) 457 F.Supp.2d 1070, 1105.) While there is no requirement that an applicant have cash or a fully funded trust account available to implement an HCP, an applicant must demonstrate that there is adequate funding for the HCP and that funds are not speculative or dependent on the future actions of others.</p> <p>Further, an HCP cannot be approved without identification of secured funding sources for activities contemplated by the HCP (i.e., funding for all 22 of the BDCP’s proposed conservation measures). In particular, an HCP must ensure that there is adequate funding and specify the sources of funding available to implement the HCP’s steps to minimize and mitigate impacts to its covered species. (16 U.S.C. [Sections] 1539(a)(2)(A), (B).) Thus, an HCP must detail the funding sources that will be available to implement any proposed mitigation program. For large-scale HCPs like the BDCP, funding issues present a real concern because of the geographic scope of the area affected and because the number and</p>	<p>Please see Master Response 5 regarding Cost. The proposed project, Alternative 4A which is the new preferred alternative, is estimated to cost significantly less relative to the former preferred alternative, Alternative 4. The difference in cost is largely due to the reduced level of restoration specifically funded by the project, as well as other Conservation Measures that are not included under Alternative 4A. The construction of the water delivery facilities is estimated to cost \$14.9 billion, an amount that would be paid for by the state and federal water contractors who rely on Delta exports. The range of costs for water vary widely among contractors south of the Delta. Costs depend on the source of water, transport facilities, energy requirements, among other factors. For the agricultural customers of the CVP, prices range from \$100 per acre-foot to more than \$400 per acre-foot. The Metropolitan Water District of Southern California, which buys water from the SWP, estimates that the cost of the proposed project would translate into about \$5.00 extra per household, per month in its service area. The final cost of water from the new conveyance facilities would be determined by numerous factors. A number of these significant factors, such as the project yield and allocation of costs, have yet to be determined.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>scope of activities contemplated typically require substantial budgets. Where perpetual funding is required to implement any mitigation measures, the HCP must establish programs or mechanisms to generate those funds. Importantly, an applicant for a permit cannot rely on the speculative future actions of others to fund activities related to an HCP. (Southwest Center for Biological Diversity v. Bartel (S.D. Cal. 2006) 470 F.Supp. 2d 1118, 1155, citing National Wildlife Federation v. Babbitt (E.D. Cal. 2000) 128 F.Supp. 2d 1274, 1294-1295, and Sierra Club v. Babbitt (S.D. Ala. 1998) 15 F.Supp. 1274, 1280-1282.)</p> <p>The lack of adequate funding to ensure implementation of mitigation and other conditions of an HCP can be a fatal flaw and, in fact, the lack of adequate funding and appropriate funding assurances has resulted in the invalidation of HCPs. HCPs must include a funding plan that outlines mandatory funding measures and provides for potential future adjustments to account for increased costs. (Southwest Center for Biological Diversity v. Bartel, supra, 470 F.Supp. 2d at p. 1156.)</p> <p>At least two HCPs in California were invalidated due to the uncertain nature of funding to support the activities contemplated in the HCP. The City of Sacramento's HCP for the Natomas area was invalidated due, in part, to inadequate funding assurances. (National Wildlife Federation v. Babbitt, supra, 128 F.Supp. 2d at p. 1274.) The City of San Diego's HCP also was invalidated for lack of adequate funding. (Southwest Center for Biological Diversity v. Bartel, supra, 470 F.Supp. 2d at p. 1118.) There the City of San Diego prepared an HCP that needed funding to acquire land for a "preserve" and to administer the plan for the life of the ITP (Incidental Take Permit). San Diego's proposed source of funding relied on future actions, consisting of future regional plans with other local jurisdictions, raising the sales tax, or issuing bonds, which would require voter approval. While San Diego promised to use its "best efforts" to implement the financing and land acquisition components of the plan, San Diego's unwillingness to ensure funding for the plan was fatal. The federal court found that the proposed funding source was unreliable and speculative, and that the USFWS could not rationally conclude that the City would "ensure adequate funding" as contemplated by the ESA.</p> <p>Like the San Diego and Natomas HCPs, the BDCP fails to demonstrate that adequate funding will be available not only to provide funding for land acquisition and administration -- but also to carry out the conservation measures that serve as the pillars of the plan. The BDCP does not fulfill even the most basic requirement that there be adequate funding available for any of the 22 conservation measures. Even the introductory paragraphs in the Funding Chapter (Chapter 8) qualify the entire funding discussion as being based on a "programmatic level" estimation of project costs. Identification of needed funding is deferred to an Implementation Office, which will, at some unspecified future time, develop annual capital and operating budgets. (BDCP, p. 8-1.)</p>	
1610	66	<p>The BDCP also is intended to serve as a NCCP under California law. In this regard, the BDCP also fails to meet the funding mandates of the Natural Communities Conservation Planning Act (NCCPA). The NCCPA demands an Implementation Agreement detailing, among other things: 1) provisions "specifying the actions [the CDFW] shall take ... if the plan participant fails to provide adequate funding"; and 2) "mechanisms to ensure adequate funding to carry out the conservation actions identified in the plan." [Footnote 46: Fish and Game Code, [Section] 2820(b)(3).] The BDCP fails to comply with this mandate.</p>	<p>Please see Master Response 5 regarding Cost. After the 60 day public comment period for Implementation Agreement for the Draft EIR/EIS. The lead agencies revised the alternative strategy allowing for a different Implementation strategy to address public comment concerns (see Chapter 1 Introduction of the Final EIR/EIS).</p>
1610	67	<p>Another defect in Chapter 8 is the assumption that funding responsibilities can simply be</p>	<p>Please see comment 1610-65. The proposed project is costly, but proponents have assessed the benefits as</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>deferred to some future date. [Footnote 47: BDCP, p. 8-2.] Without an understanding of who will pay and what funding is needed -- there is simply no way to assess whether adequate funding exists sufficient to provide any regulatory assurances to the project proponents. Indeed, the BDCP itself admits that the BDCP is not intended to establish an allocation of costs or repayment responsibilities; instead, finance plans will be developed separately by "various funding agencies" through future discussions. [Footnote 48: Id.]</p> <p>Moreover, the BDCP attempts to impose costs of certain conservation measures on the general public when those costs should be borne by the contractors receiving the benefit of the BDCP. For example, the BDCP suggests that the contractors should be responsible for 12.6% of the costs of CM-4. (BDCP, Table 8-41.) The rationale is that a small portion of restoration occurring under CM-4 is currently required by the USFWS Biological Opinion (BiOp) for the Long-Term Operational Criteria and Plan (OCAP). However, the BDCP fails to disclose that tidal restoration will also serve to mitigate the adverse impacts of relocating the diversion facilities to the north Delta. Without CM-4 (and CM-5), the relocation of pumping facilities to the north Delta would increase the frequency and severity of reverse flows in the Sacramento River. Restored tidal areas allow the incoming tide to dissipate and mask the affects of the new north Delta intakes. As such, the cost of CM-4 is more appropriately imposed on the contractors because CM-4 mitigates the operational impacts of the north Delta intake facilities.</p> <p>Generally, the BDCP relies, in part, on various federal funding sources -- sources that require action by Congress to authorize the ongoing expenditure of funds or new authorizations to provide funding for certain BDCP activities. The Antideficiency Act prohibits, among other things, the creation of obligations in excess of amounts already appropriated and committing the federal government to pay funds not yet appropriated. To the extent BDCP relies on any possible funding sources that are in excess of current federal authorizations or would require the appropriation of funds, that reliance would likely run afoul of the Antideficiency Act.</p> <p>In addition to the above described funding flaws, nearly all of the identified funding sources are too speculative to support the issuance of take permits as requested by the project proponents. These funding sources are outlined in Section 8.3 of the BDCP.</p>	<p>described in the funding sources. Notably, the water contractors benefitting from the proposed project and their constituents will bear all costs associated with constructing new conveyance facilities and mitigating for the impacts of those facilities. Expenditures of public money from other sources would be limited to restoration activities beyond those needed to mitigate the impacts of facility construction. 2013 Public Draft Chapter 8, which deals with cost issues, and cost-benefit analysis information are available on the BDCP website. Note the preferred alternative is now Alternative 4A and includes significantly reduced conservation than Alternative 4.</p>
1610	68	<p>The BDCP contemplates that CVP Contractors have "committed to fund construction, operation, and construction-related mitigation costs for implementation of CM-1 . . . ." (BDCP, p. 8-73.) However, according to the BDCP, USBR is not a permittee and there is no commitment to wheel federal water through the new facilities. As a result, there is no basis for assuming federal contractors will pay for facilities that will only wheel SWP water.</p>	<p>Please see Master Response 5 regarding Cost. Under Alternative 4A DWR and Reclamation are lead agencies, but NMFS and USFWS do not have a permitting role therefore these two agencies assumed roles as cooperating agencies for purposes of NEPA review of the RDEIR/SDEIS and the FINAL EIR/EIS. Please see Master Response 28, Operational Criteria. Under any alternative, the SWP water supply contracts could be amended to define the obligations for funding and the allocation of benefits of a new Delta conveyance for specific SWP water agencies. The potential that such an amendment to the SWP contracts would reallocate and redistribute SWP water, such as from agricultural to municipal uses, is discussed in Chapter 30, Growth Inducement and Other Indirect Effects. Chapter 4, Approach to the Environmental Analysis, describes the approach to the analysis, including the rationale for the project-level and program-level analyses (see Chapter 1 1.2.1 BDCP Alternatives of the Final EIR/EIS).</p>
1610	69	<p>To fund CM-1, the BDCP indicates that the state and federal contractors "could issue either general obligation or revenue bonds." (BDCP, p. 8-78.) However, and as recognized by the BDCP, general obligation bonds require voter approval and are therefore speculative.</p>	<p>Please see Master Response 5 for more information about CM1 and Cost. Prior to construction of the proposed project, the EIR/EIS must be certified and adopted by the implementing agencies, and permits must be obtained. However, a public vote it not required to move forward. California Water Code section 12934, subdivision (d)(3), of the Burns-Porter Act and Water Code section 11260 of the Central Valley Project Act authorize DWR to build water facilities in the Delta, as part of the State Water Project, and give</p>

DEIRS Ltr#	Cmt#	Comment	Response
			DWR broad discretion as to what those facilities may involve. Thus, DWR has the authority to build the proposed project without a public vote.
1610	70	For State Funding sources, the BDCP relies upon a significant contribution from a "water bond" that is currently scheduled for the 2014 ballot. (BDCP, p. 8-84.) BDCP attempts an analysis of prior bonds, concluding that bond passage is likely and others likely would be passed during the implementation period of the BDCP. (BDCP, p. 8-85.) Yet bond passage is not assured and any funding relied upon from a yet-to-be-passed bond measure is purely speculative, as the voters could reject the bond. Further, Sacramento County and its four Delta County Coalition partners will oppose any water bond that includes a funding earmark for the BDCP. Indeed, and as the BDCP recognizes, the current bond has already been delayed multiple years because the economic climate was not favorable for passage. In fact, the reality is that the bond would not have been passed by the voters. Given the history of this bond and the speculative nature generally of voter-approved financing, the BDCP cannot rely on this funding source.	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. In response to comments received during the 2013-2014 public comment period, State and Federal agencies added additional non-hcp alternatives and modified proposed project (Alternative 4A/California WaterFix) is being considered as the preferred project. There are various funding options which could be used separately or together to provide SWP funding for the construction, operation, and maintenance of a new conveyance facility described in any action alternative. Bonds are not the only source of revenue; however, If revenue bonds are issues then that by itself could possibly suffice to provide funding. A second method is to charge SWP water contractors for the cost of the conveyance. Another option is for DWR, SWP and CVP water contractors can enter a funding agreement similar to funding agreements used under paying the BDCP-Delta Habitat Conservation Plan and Conveyance Program. A third method would be for DWR and the SWP water contractors to amend the SWP Water Supply contracts to add new provisions for funding the conveyance facility. (See Chapter 3 of the Final EIR/EIS). Please see Master Response 5 regarding Cost.
1610	71	The BDCP then looks to existing bond source availability in California. (BDCP Section 8.3.5.2.) While not articulated, it appears that the BDCP anticipates that it will "corner the market" in existing bond funds -- using all available bond funding for the BDCP. (BDCP, pp. 8-86 -- 8-91.) If this is the intent, the BDCP needs to discuss (both in the BDCP and DEIR/EIS) the other projects throughout the State that will not be able to receive funding from these bond sources. Generally, it is speculative to conclude that all of the remaining bond funds under the cited programs will be made available only to the BDCP. In any event, the remaining balances (monies) are small in comparison to the amount needed to fully fund the BDCP's proposed conservation measures.	Please see comment 1610-70.
1610	72	The BDCP assumes continued funding for programs/studies under the Interagency Ecological Program (IEP). (BDCP, p. 8-91.) The BDCP assumes an "overlap," without any factual support, of IEP work and the BDCP. Without any substantiation, the BDCP assumes that IEP funding will account for \$55 million over the permit term. (BDCP, p. 8-91.) There is, of course, no requirement or guarantee that the State Legislature will continue to fund IEP efforts and those funds therefore cannot be relied upon to provide stable and secure funding over the life of the permit term.	See comment 1610-70. Please see Master Response 45, Permitting. In the Draft EIR/IES chapter 8 IEP, USGS, and Reclamation monitoring programs that overlap with the BDCP were to be included to reach monitoring and potential research cost.
1610	73	The BDCP assumes that nearly \$2 million per year will be available from the Delta Stewardship Council (DSC) to support the BDCP. DSC funding is not certain, subject instead to the state's budget process. The DSC cannot provide assurances that any funding will be available to support the BDCP and certainly cannot assure \$2 million per year for the life of the permit term. This funding source is speculative and uncertain.	The proposed water conveyance facility design was approximately 10% complete under the 2013 Public Draft. This level of design is typical of infrastructure projects at this stage of the environmental review process. The detailed cost estimate for the facility was developed to take into account the preliminary level of design. Cost estimates include standard contingencies of 20-30% and in some cases are as high as 50% where cost uncertainties are highest. The cost estimate in Chapter 8 of the 2013 Public Draft, is at an appropriate level of detail and accuracy for a planning level estimate for the endangered species permits from the state and federal governments.  For a discussion of project costs, please review Master Response 5.
1610	74	The BDCP assumes a roughly \$2 million annual financial contribution from the Delta Bay Enhanced Enforcement Project (DBEEP) program. (BDCP, p. 8-93.) The BDCP indicates that, through the DBEEP program, DWR funds roughly \$2 million annually for CDFW's enforcement efforts to reduce illegal take of fish species. (BDCP, p. 8-93.) While it is not clear from the text, this is part of the SWP Budget -- and will be a funding requirement	Please see comment 1610-73.

DEIRS Ltr#	Cmt#	Comment	Response
		imposed on the SWP contractors. The document must discuss the underlying sources of this funding to provide an appropriate assurance that the funding will be available through the permit term. As revealed in the BDCP, the current agreement for the DBEEP is only three years. This funding is not certain for the 50-year term of the permit.	
1610	75	The BDCP relies on funding provided through the 2010 Fish Restoration Program Agreement. (BDCP, p. 8-94.) The document, however, recognizes that subsequent agreements would need to be executed and that funding would need to be included. (BDCP, p. 8-94.) Funding is therefore not available from this program.	Please see comment 1610-73.
1610	76	The BDCP relies on existing state grants for possible funding sources. (see BDCP, pp. 8-94 -- 8-99 (Wildlife Conservation Board grants for work "relevant" to the BDCP; Ecosystem Restoration Program funding "applicable" to the BDCP; Environmental Enhancement Fund availability is "intermittent" and "not guaranteed".	Please see comment 1610-73.
1610	77	Fisheries Restoration Grant Program has funding "uncertainties").) While certain of these programs may provide a possible source of funds, none provides the financial certainty sufficient to issue the requested permits.	Please see comment 1610-73.
1610	78	One federal funding source relied upon by the BDCP is the Central Valley Project Improvement Act (CVPIA) Restoration Fund. (BDCP, p. 8-99.) The CVPIA Restoration Fund is necessarily connected to the CVP -- and 75% of funds paid into the Fund are either reimbursed as a feature of the CVP or are a non-reimbursable expenditure. The BDCP purports to be a project that is State (SWP/DWR) owned and is not part of the CVP. The USBR is not a project proponent and has not confirmed it will sign the Implementation Agreement. It is therefore not appropriate to assume CVPIA funding to support DWR's project. Moreover, reliance on the continuous appropriation of these funds likely violates the Antideficiency Act.	Please see comment 1610-73.
1610	79	The BDCP also relies on speculative California Bay-Delta appropriations to fund portions of the BDCP. (BDCP, p. 8-103.) There are a host of problems associated with reliance on these funds, the foremost of which is the assumption that any federal appropriation of funds will be made through the expected term of the permit. Many of the identified funds are directed to federal agencies that are not parties to the BDCP and will not sign the Implementation Agreement. There is simply no stated basis to rely on federal funding for the term of the permit in a manner sufficient to provide assurances to authorize take of listed species. Moreover, any reliance on the continuous appropriation of these funds likely violates the Antideficiency Act.	Please see comment 1610-73. This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For detailed responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1610	80	The BDCP relies on Regional Ecosystem Conservation through the National Marine Fisheries Service (NMFS). (BDCP, p. 8-108.) However, and as the BDCP expressly admits, there are no current estimates for funding that might be available to NMFS for projects in the San Francisco Bay area. (BDCP, p. 8-109.) There is no basis for relying on any funding from this source in support of the BDCP. Reliance on the continuous appropriation of these funds likely violates the Antideficiency Act.	Please see comment 1610-73.
1610	81	The BDCP's reliance on existing federal grants is speculative. (BDCP, pp. 8-110 -- 8-118.) While certain grant programs might provide the BDCP with opportunities to compete for available grant funding, there is no guarantee that the BDCP will be awarded any grants under any of the programs identified in the document.	Please see comment 1610-73.

DEIRS Ltr#	Cmt#	Comment	Response
1610	82	The BDCP's reliance on possible future federal authorizations is too speculative to rely upon, as the permittees' "intent to collaborate and seek federal authorizations" provides no certainty in funding. (BDCP, p. 8-109.) Reliance on the appropriation of these funds likely violates the Antideficiency Act.	Please see comment 1610-73.
1610	83	The speculative nature of this funding is fatal to the BDCP, as take authorization cannot be issued without greater certainty in funding. Not surprisingly, recent testimony of a DWR representative confirmed the speculative nature of the BDCP funding. At the February 12, 2014, California Assembly Committee on Accountability and Administrative Review oversight hearing on the BDCP (2/12/14 Hearing), DWR's representative, Laura King Moon, testified about the nature and certainty of funding to support the BDCP. Ms. King Moon explained that, in the event funding is not available -- the Potential Regulated Entities (PREs) will revisit plan and renegotiate ESA take permit scope of coverage with agencies and possibly scale back the project. [Footnote 49: Laura King Moon Testimony, 2/12/14 Hearing, timestamp 00:19:00-00:19:40.] Testimony at this hearing revealed that funding is uncertain and relies upon the assumption that funding will be provided because, generally, state and federal governments have funded other significant restoration projects. [Footnote 50: Id. at time stamp 00:18:23 -- 00:18:30]	Please see comment 1610-73. And please see Master Response 45, permitting.
1610	84	In addition to the speculative funding sources, certain categories of expenses identified in the BDCP grossly underestimate the funds needed to complete the conservation measures. Land cost is one example. The BDCP makes assumptions on land acquisition that will occur over the life of the project. Inherent in these assumptions (not only in costs, but also in the implementation schedule referred to in Chapter 8 (BDCP, p. 8-5.)) is that there will be continued funding available for all conservation measures through the life of the permit. However, as DWR's representative testified, funding might not be available for all of the project, which will necessitate scaling back the BDCP. (Laura King Moon Testimony, 2/12/14 Hearing, time stamp 00:19:00-00:19:40.)	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Please see comment 1610-73. Property tax revenue effects of land acquisitions required for construction of water conveyance facilities are discussed in Chapter 16, Socioeconomics, Impact ECON-4, EIR/EIS. Similarly, for land acquired for habitat restoration measures under the environmental commitments (see Impact ECON-16), the lead agencies would compensate local governments and special districts for forgone revenue.
1610	85	Another major flaw in this section is the cost assumption associated with land acquisition. Cost estimates are based upon data from the California Chapter of the American Society of Farm Managers and Rural Appraisers (Cal ASFMRA) published in 2009. First, data published by Cal ASFMRA in 2009 indicated that land values were increasing through 2009 and the trend was for further increases. BDCP ignores this fact. Moreover, land values assume simple real estate market values for various types of cropland. This assumes a stable real estate market with normal demand and willing sellers of the property sought to be acquired. Those assumptions are unreasonable for a number of reasons. First, to the extent the BDCP creates a demand for 153,114 acres of property needed for various conservation measures and mitigation in the project area, prices will likely increase substantially. Second, and more importantly, the assumptions fail to take into account the very real likelihood that the project proponents will need to acquire the vast majority of needed property through condemnation. Once that process is initiated, prices will not be based on current use of the property, but instead on the highest and best use. Thus, real property values and the funding needed to purchase land are grossly underestimated.  Even after land is purchased, the BDCP is unclear about long-term funding for lands purchased for the BDCP. For example, when discussing the long-term protection of Reserve lands, the BDCP provides that this protection will be accomplished "using techniques identified in CM-11 Natural Communities Enhancement and Management, commensurate with funding limitations." [Footnote 51: BDCP, p. 6-10.] It is unclear what type of funding	Please see comment 1610-73 and comment 1610-84. Please see Master Response 5 regarding Cost.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>limitations could exist (this could be tied to the uncertainties of funding, discussed above) and what impact the lack of adequate funding would have on the Reserve lands. The BDCP's failure to clearly articulate how financing and long-term protection will be accomplished in a way that is accessible to the public is a significant flaw in the BDCP.</p>	
1610	86	<p>The discussion of Changed Circumstances, in Chapter 6, also reveals deficiencies in funding considerations. For example, when discussing Levee Failures as a changed circumstance under the BDCP, the BDCP assumes that the costs associated with the failure of a "non-BDCP" levee will fall on "the appropriate responsible entity." [Footnote 52: BDCP, p. 6-35.] What the BDCP fails to reveal, however, is that it is DWR (or some combination of permittees) that will likely be the "appropriate responsible entity." Local levees are maintained by local reclamation districts, which themselves are comprised of local landowners who are protected by those levees. With DWR becoming a significant Delta landowner under the BDCP, DWR, as a result of its land ownership, will be responsible, like any other local landowner, for the operation and maintenance -- even of these "non-BDCP" levees. BDCP's obfuscation of this issue misleads the public by suggesting the costs of remediation of a non-BDCP levee will not be part of the costs of the BDCP. Moreover, while the BDCP suggests that local reclamation districts will be financially responsible for reconstructing restored areas in the event of levee failure, DWR failed to analyze whether any of these local reclamation districts have the resources or financial capacity to reconstruct restoration areas. The BDCP should be required to include such an analysis if the BDCP is going to rely on these local agencies to act as a backstop in the event of levee failure. Otherwise the BDCP permittees cannot assure adequate funding for the project.</p> <p>In addition, the BDCP anticipates that in the event of a levee failure, one possible corrective action would be to purchase and restore additional lands as a "replacement" project. Neither the BDCP nor the DEIR/EIS discusses the additional costs of purchasing replacement lands, or discusses the additional impacts of taking more productive agricultural land out of production in the Delta in the event restored lands are lost to a levee failure. The BDCP's failure to discuss these circumstances is quite troubling, particularly when DWR has been trumpeting the very likelihood of catastrophic Delta levee failure as creating the need for the proposed alternate conveyance. If catastrophic Delta levee failure is so likely, surely DWR needs to have a financial plan in place, as a local landowner, to fund local Delta levees and prepare for the likelihood of having to replace large restoration areas.</p>	<p>Please see comment 1610-73. The California Department of Water Resources' Levee Repairs and Floodplain Management Office is responsible for administering levee programs through evaluation and direct rehabilitation of structural deficiencies in California's levee system. Overall levee repairs and improvement programs administered by DWR will continue with available funding. For additional information on the relationship between the proposed project and Flood protections in the Delta, please see EIR/EIS Appendix 6A BDCP/California WaterFix Coordination with Flood Management Requirements.</p>
1610	87	<p>While the ESA demands that adequate funding be identified and available to implement the projects outlined in an HCP, the BDCP fails across the board to satisfy any funding requirement. Even the BDCP's reliance on funding from federal contractors based upon the delivery of federal CVP water is flawed, as the USBR will not be a permittee and will not sign the Implementation Agreement. The remaining sources of funding identified in the BDCP are too speculative to support the issuance of an incidental take permit.</p>	<p>Please see comment 1610-73. Please see Master Response 29 for timing of ESA compliance.</p>
1610	88	<p>Under CEQA, the project must include "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment..." [Footnote 53: 14 Cal. Code Regs., [Section] 15368; see also Nelson v. County of Kern (2010) 190 Cal.App.4th 252, 271.] To comply with CEQA's standards for completeness, the project description must address "not only the immediate environmental consequences of going forward with the project, but also all 'reasonably foreseeable consequence[s] of the initial project'." [Footnote 54: Communities for a Better Environment v. City of Richmond (2010) 184 Cal.App.4th 70, 82 (quoting</p>	<p>Please see Master response 8, Lead Agencies Analyzed the Project as a Whole and please see Master Response 4 regarding Alternative Development.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 428; Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 391, fn. 2 (Laurel Heights I).] As courts have recognized for decades, "an accurate, stable and finite project description" is "the sine qua non of an informative and legally sufficient EIR." [Footnote 55: County of Inyo v. City of Los Angeles (Inyo III) (1977) 71 Cal.App.3d 185, 199.] Reliance on a "curtailed, enigmatic or unstable definition of the project" stands as the paradigm of legal error under CEQA, because it "draws a red herring across the path of public input." [Footnote 56: Id. at 199.] An "EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment whether the purpose can be achieved." [Footnote 57: County of Inyo v. City of Los Angeles (Inyo V) (1981) 124 Cal.App.3d 1, 9.] CEQA requires "interactive process of assessment of environmental impacts and responsive project modification which must be genuine." [Footnote 58: County of Inyo v. City of Los Angeles (Inyo VI) (1984) 160 Cal.App.3d 1178, 1183; see Id. at 1186 (project cannot be defined to set up "a CEQA turkey shoot").]</p> <p>A lawful project description under CEQA helps the lead agency "develop a reasonable range of alternatives to evaluate in the EIR [that] will aid the decision-makers..." [Footnote 59: 14 Cal. Code Regs, [Section]15124(b); see also In Re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (In Re Bay-Delta) (2008) 43 Cal.4th 1143, 1166 (lead agency "may structure its EIR alternatives analysis around a reasonable definition of underlying purpose and need").] However, "a lead agency may not give a project's purpose an artificially narrow definition...." [Footnote 60: Id.] A "curtailed or distorted project description may stultify the objectives of the reporting process." [Footnote 61: Inyo III, 71 Cal.App.3d 185, 192; see also Inyo VI, 160 Cal.App.3d at 1186 .] In Inyo III, the court rejected the Los Angeles Department of Water and Power's attempt in its EIR to "narrow the city's obligation -- and the scope of this lawsuit -- down to the relatively small flow of underground water destined for in-valley use." [Footnote 62: Inyo III, 71 Cal.App.3d at 196.] That narrow definition evaded the county's warning that EIR simply assumed the "filling of the second aqueduct," and the State Board's warning that the narrow definition diverted attention "from the impacts of the of the major project which is the importation of additional water to Los Angeles." [Footnote 63: Id. at 198.] The "selection of a narrow project as the launching pad for a vastly wider proposal frustrated CEQA's public information aims The department's calculated selection of its truncated project concept was not an abstract violation of CEQA," but rather, a failure to proceed "in a manner required by law." [Footnote 64: Id. at 200 (quoting Pub. Res. Code, [Section] 21168.5.) The "impermissibly truncated" and inconsistent project definition in the EIR also unlawfully skewed the lead agency's assessment of the "no project" alternative and project alternatives. [Footnote 65: Id. at 200-206.]</p>	
1610	89	<p>In Communities for a Better Environment, the court held that the City of Richmond's EIR for a refinery project "fails as an informational document," in part because the EIR's project description "is inconsistent and obscure as to whether the Project enables the Refinery to process heavier crude." [Footnote 66: 184 Cal.App.4th at 89.] The court noted that conflicting information in the EIR, and in 10-K statements filed with the Securities and Exchange Commission, contradicted the benign account provided in the EIR. The substantial evidence test was "not relevant" to assessment of violations of CEQA's information disclosure provisions. If the EIR does not "adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences, informed decision-making cannot occur under CEQA and the final EIR is inadequate as a</p>	<p>The Lead Agencies acknowledge that uncertainty is inherent in any planning effort of this geographic and temporal scale. However, DWR strived to use the best available science throughout the effects analysis, consistent with the requirements of the ESA. Additionally, the official public review process for the proposed project provides an opportunity for formal public comment on the proposed project and project alternatives. Public and agency comments on the public draft have led to further refinement of the proposed project, as evidenced in the RDEIR/SDEIS. Please see Master response2 Program Level vs. Project level and Master Response 3 Purpose and need.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		matter of law. [Footnote 67: Id. at 83 (citations omitted).]	
1610	90	NEPA requires federal agencies to articulate the "purpose and need" for a proposed action for which environmental review is required. [Footnote 68: (40 C.F.R. [Section] 1502.13.)] That articulation is crucial for the "heart" of NEPA, the alternatives analysis, which enables the EIS to provide "a clear basis for choice among options by the decision-maker and the public." [Footnote 69: (40 C.F.R. [Section] 1502.14.)] Federal courts have also noted that NEPA prohibits the use of the use of a truncated "purpose and need" statement, in which the articulation of objectives is defined in a manner that curtails full assessment of the project and alternatives. [Footnote 70: (City of Carmel-by-the-Sea v. United States Department of Transportation (9th Cir. 1997) 123 F.3d 1147, 1155; Friends of Southeast's Future v. Morrison (9th Cir. 1998) 153 F.3d 1059,1066.)]	For more information regarding alternatives to the proposed project please see Master Response 4. For more information regarding purpose and need of the proposed project please see Master Response 3.
1610	91	The EIR/EIS asserts that the "fundamental purpose" in BDCP is to "make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south-of-Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations." (EIR/EIS 2-1.) The EIR/EIS purports to be "informed by past efforts taken within the Delta and the watersheds of the Sacramento and San Joaquin Rivers, including those undertaken through the CALFED Bay-Delta." (Id.)	Please see Master Response 3 for information on purpose and need of the project. The federal agency purpose of the proposed action is to improve the movement of water entering the Delta from the Sacramento Valley watershed to the existing SWP and CVP pumping plants located in the south Delta in a manner that minimizes or avoids adverse effects on listed species, supports coordinated operation with the SWP, and is consistent with the project objectives described in Section 2.4. Project actions would be based on these specific purposes.  1. Restoring and protecting aquatic, riparian and associated terrestrial natural communities and ecosystems of the Delta.  2. Restoring and protecting the ability of the SWP and CVP to deliver up to full contract amounts of CVP water when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of applicable state and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements  DWR's fundamental purpose in proposing the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations (see Chapter 2 Project Objectives and Purpose and Need of the Final EIR/EIS).
1610	92	Relationship to Project Approval:  The intent of the BDCP proponents is to formulate a plan that could ultimately be approved by the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service as a Habitat Conservation Plan under the provisions of ESA Section 10(a)(1)(B) and by California Department of Fish and Wildlife (CDFW) as an NCCP 8 under California Fish and Game Code Sections 2800 et seq. (EIR/EIS, ES-8.) The BDCP proponents -- DWR and six State Water Project (SWP) and Central Valley Project (CVP) water contractors -- are applying for Incidental Take Permits (ITPs) from USFWS and NMFS, pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) and incidental take authorization by the California Department of Fish and Wildlife (DFW), pursuant to California Fish and Game Code Section 2835. The BDCP "has been prepared as a required component of the application for the ITPs/NCCP permit, and to support the issuance of these permits for a term of 50 years." (Id.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	93	BDCP's fundamental purpose gives rise to more specific project objectives, which the EIR/EIS retains with small changes from those listed earlier in the Notice of Preparation. While several focus on improving "the ecosystem of the Delta," others focus more directly	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.

DEIRS Ltr#	Cmt#	Comment	Response
		on project operations and deliveries to water contractors.	
1610	94	Authorize the take of protected species related to "[t]he operation of existing SWP Delta facilities and construction and operation of facilities for the movement of water entering the Delta from the existing watershed" to the existing SWP and CVP pumping plants in the southern Delta. (EIR/EIS, 2-3.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	95	Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of State and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements. (EIR/EIS, 2-3.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	96	Project objectives include consideration of "conveyance options in the north Delta that can reliably deliver water at costs that are not so high as to preclude, and in amounts that are sufficient to support, the financing of the investments necessary to fund construction and operation of facilities and/or improvements." (EIR/EIS, 2-4)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	97	To ensure that the BDCP meets the standards for an NCCP by, among other things, protecting, restoring, and enhancing aquatic and terrestrial natural communities and ecosystems that support covered species within the Plan Area.	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	98	Make physical improvements to the conveyance system in anticipation of rising sea levels and other reasonably foreseeable consequences of climate change.	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	99	Make physical improvements to the conveyance system that will minimize the potential for public health and safety impacts resulting from a major earthquake that causes breaching of Delta levees and the inundation of brackish water into the areas in which the SWP and CVP pumping plants operate in the southern Delta. (EIR/EIS, 2-3.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	100	To develop projects that restore and protect water supply and ecosystem health and reduce other stressors on the ecological functions of the Delta in a manner that creates a stable regulatory framework under the Endangered Species Act (ESA) and Natural Community Conservation Planning Act (NCCPA). (Id.)	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1610	101	To identify new operations and a new configuration for conveyance of water entering the Delta from the Sacramento River watershed to the existing SWP and CVP pumping plants in the southern Delta by considering conveyance options in the north Delta that can reliably deliver water at costs that are not so high as to preclude, and in amounts that are sufficient to support, the financing of the investments necessary to fund construction and operation of facilities and/or improvements. (Id.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	102	The implementation of any conservation actions that have the potential to result in take of species that are or may become listed under the ESA, pursuant to the ESA at section 10(a)(1)(B) and its implementing regulations and policies, must improve the ecosystem of the Delta by providing for the conservation and management of covered species through actions within the BDCP Planning Area that will contribute to the recovery of the species. These improvements must be done through: protecting, restoring, and enhancing certain aquatic, riparian, and associated terrestrial natural communities and ecosystems; reducing the adverse effects on certain listed species due to diverting water; and through restoring and protect the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water, consistent with the	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.

DEIRS Ltr#	Cmt#	Comment	Response
		requirements of state and federal law and the terms and conditions of water delivery contracts held by SWP contractors and certain members of San Luis Delta Mendota Water Authority, and other existing applicable agreements. (EIR/EIS 2-4.)	
1610	103	The EIR/EIS asserts the intention to "advance the coequal goals set forth in the Sacramento-San Joaquin Delta Reform Act of 2009 of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." It also clarifies that the phrase "restore and protect the ability of the SWP and CVP to deliver up to full contract amounts" is sets an "upper limit of legal CVP and SWP contractual water amounts," and is "not intended to imply that increased quantities of water will be delivered under the BDCP." (EIR/EIS, 2-5.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	104	The EIR/EIS's statement of project need mentions "[t]he multiple, and sometimes conflicting, challenges currently faced within the Delta. The Delta has long been an important resource for California, providing municipal, industrial, agricultural and recreational uses, fish and wildlife habitat, and water supply for large portions of the state. However, by several key criteria, the Delta is now widely perceived to be in crisis. There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta. Improvements to the conveyance system are needed to respond to increased demands upon and risks to water supply reliability, water quality, and the aquatic ecosystem." (EIR/EIS, 2-5.)	The commenter accurately quotes the EIR/EIS. This comment should be read in combination with comments 92-105 of this letter. See response to 1610-105 for a full response.
1610	105	<p>The EIR/EIS signals that BDCP proponents expect to rely on In Re Bay-Delta to support the decision-makers' discretion to define this unusual "conservation" project and limit on the range of alternatives. (EIR/EIS, 2-2 and fn. 1.) In that decision, the California Supreme Court reversed an appellate ruling and narrowly upheld the CALFED Program EIR, including its rejection of a "reduced exports" alternative on the ground that it would not feasibly accomplish CALFED's water supply objective, and well as its underlying goal of reducing conflicts. (In Re Bay-Delta, 43 Cal.3d at 1165.)</p> <p>BDCP's EIR/EIS fails to note the narrow context in which the California Supreme Court decided In Re Bay-Delta, as well as its cautionary language relating to future conditions in the Delta. Reviewing a "relatively early" stage of program design, opportunities to pursue a different course in later stages, and analysis of other alternatives believed to cover a reasonable range of alternatives, the Supreme Court was willing to give CALFED the benefit of the doubt in a close call. At the same time, the Court issued this warning: "As the CALFED PEIS/R itself recognizes, Bay-Delta ecosystem restoration to protect endangered species is mandated by both state and federal endangered species laws, and for this reason water exports from the Bay-Delta ultimately must be subordinated to environmental considerations. The CALFED Program is premised on the theory, as yet unproven, that it is possible to restore the Bay-Delta's ecological health while maintaining and perhaps increasing Bay-Delta water exports through the CVP and SWP. If practical experience demonstrates that the theory is unsound, Bay-Delta water exports may need to be capped or reduced." (In Re Bay-Delta, 43 Cal.3d at 1165.)</p> <p>The years since the 2008 In Re Bay-Delta decision have shown this warning to be prophetic. As the California Supreme Court anticipated, the CALFED program failed to restore the Bay-Delta's ecological health, and failed to stop the precipitous decline in its pelagic organisms. Numerous sources, including the Delta Independent Science Board to the State Water Resources Control Board, have eviscerated any credible expectation that it is possible</p>	<p>The proposed project was developed to meet the standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p> <p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA.</p> <p>15 alternatives and 3 additional subalternatives were analyzed in the EIR/S and the RDEIR/RSEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1.</p> <p>Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4.</p> <p>For more information regarding project and program level analysis please see Master Response 2.</p> <p>For more information regarding purpose and need please see Master Response 3.</p> <p>Please see Master Response 29 regarding the Endangered Species Act.</p> <p>Master Response 31 regarding compliance with the Delta reform act.</p> <p>Master Response 28 Operational Criteria.</p> <p>Master Response 45 Permitting.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		to achieve that restoration--much less provide a lawful "conservation plan" meeting legal requirements for protected species--while maintaining and perhaps increasing Bay-Delta water exports.	In addition please visit the Final EIR/EIS Project Objective and Purpose and Need chapter 2. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.
1610	106	<p>The 2009 Delta Reform Act, which articulates a state policy to "reduce reliance on the Delta," also requires BDCP to study "[a] reasonable range of flow criteria, rates of diversion, and other operational criteria required to meet the requirements for a lawful NCCP. (Delta Reform Act, [Section] 85320(b)(2)(A).)</p> <p>Science and law should now converge to prevent the agencies from framing BDCP in a manner that forecloses meaningful alternatives and consigns the Delta's future to wishful thinking.</p>	<p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.</p> <p>For more information regarding operational components please see Chapter 3 of the FEIR/EIS. Please see Master Response 31 regarding compliance with the Delta reform act.</p>
1610	107	<p>The EIR/EIS is fundamentally misleading in portraying BDCP as a "comprehensive conservation strategy for the Sacramento-San Joaquin Delta (Delta) to advance the planning goal" of "restoring" the Delta's ecological functions. (EIR/EIS, ES-1.) Reviewing BDCP's proposed conservation measures listed below (Table ES-3 of Proposed BDCP), it is clear which of the 22 listed is not like the others. Conservation Measure CM1 provides "for the construction and operation of a new north Delta water conveyance facility to bring water from the Sacramento River in the north Delta to the existing water export pumping plants in the south Delta, as well as for the operation of existing south Delta export facilities."</p> <p>The EIR/EIS offers no credible analysis of why CM1 qualifies as a Conservation Measure. The EIR/EIS untenably assumes that a plan proposing large new conveyance facilities, which would prevent millions of acre-feet per year from reaching the Delta, can be managed to improve Delta water quality and protect endangered species. Far from contributing to the protection or restoration of ecosystem health in the Delta, this measure would take large quantities of additional water out of the Delta and compound ecological risks. Indeed, scientific critiques from the Independent Science Board cast doubt help confirm it is an "unproven theory" at best whether CM2 to CM22 will be capable of mitigating the harm from CM1. Bundling a toxic conservation asset with other nice-sounding proposals does not turn it into a conservation plan. The project description distorts the project's impacts on existing and senior water users, and species (including humans) depending on flows through the Delta. It sidesteps the protection of areas of origin rights and beneficial uses in the Delta region.</p>	<p>Please note that the new preferred alternative, 4A, no longer includes large-scale habitat restoration and would not be implemented as an HCP. Instead, elements of the BDCP HCP Conservation Measures would be implemented as Environmental Commitments to mitigate and offset potential effects of the preferred alternative consistent with applicable state and federal laws and regulations. Please see Master Response 5 regarding why the new proposed water conveyance facilities are appropriately designated as a conservation measure, in addition to Master Response 34 for information on beneficial uses of water. Also, see Master Response 3 for the purpose and need of the BDCP/CWF. Please see Master Response 32 regarding Water Rights. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>
1610	108	<p>The EIR/EIS's division of project and program components creates a major obstacle to ensuring timely consideration of the "whole" of the project in accordance with CEQA and NEPA. Remarkably, only the non-conserving "conservation" measure CM1 is slated for project-level analysis, while the remaining measures (CM 2-22) are consigned to program-level review, with the caveat that further environmental review may be needed prior to implementation. This creates a major disconnect, in which project-level decision-making may be completed on the conveyance part of BDCP while details and implementation of the other proposed conservation measures remain mired in doubt.</p>	<p>Please see Master Response 2 for information on how the EIR/EIS mixes project vs. program level of detail. Please see Master Response 8 Lead agencies viewed the project as a whole. Please see Master Response 5 regarding BDCP Conservation Measures.</p>
1610	109	<p>The statement of project objectives and project purpose rely upon the legally erroneous direction to "restore and protect" the SWP and CVP's nonexistent ability to deliver "up to full contract amounts." BDCP cannot credibly base a conservation plan on institutionalizing the same "aura of unreality" on contract deliveries discussed and discredited in PCL v. DWR.</p>	<p>Please see Master Response 45 regarding Permitting. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(Planning and Conservation League v. Department of Water Resources (2000) 83 Cal.App.4th 892, 915.) Similarly, NRDC v. Jewell, the new Ninth Circuit decision on ESA obligations for settlement contract renewals, serves as an important reminder that expectations of deliveries in project contracts cannot be counted on to justify an end-run around ESA requirements.</p> <p>The description of project operation improperly assumes the protection of beneficial uses and meeting of other regulatory requirements, without consistently analyzing hydrologic constraints over the project term. (See, e.g., ES-7.) The project assessment improperly seeks to insulate permit holders from further responsibility to meet federal and state environmental laws, as well as other legal standards and permit requirements. (See Chapter 6.4.2 and following).</p>	<p>water diversion in the north Delta and new operating criteria, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.</p> <p>The proposed project was developed to meet the standards of the Clean Water Act and federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p>
1610	110	<p>The Delta is an incredibly complex estuarine ecosystem and only in our hubris do we believe we understand the intricacies of its hydrological, chemical and biological tapestry. Virtually every previous environmental document prepared for hydro-modification projects in this estuary have promised benign or beneficial results. All exacerbated existing conditions. Almost every significant physical change of the environment by humankind has been accompanied by unintended consequences. Adaptive management must be an integral component of any Delta Plan. But, adaptive management is difficult to implement. As the National Research Council opined:</p> <p>"Numerous attempts have been made to develop and implement adaptive management strategies in environmental management, but many of them have not been successful, for a variety of reasons, including lack of resources; unwillingness of decision makers to admit to and embrace uncertainty; institutional, legal, and political preferences for known and predictable outcomes; the inherent uncertainty and variability of natural systems; the high cost of implementation; and the lack of clear mechanisms for incorporating scientific findings into decision making." [Footnote 71: National Research Council, A Review of the Use of Science and Adaptive Management in California's Draft Bay Delta Conservation Plan, 2011, p. 6.]</p> <p>There is seemingly nothing in the thousands of pages of BDCP's plan or EIR/EIS that provides any evidence that adaptive management is likely to succeed. Adaptive management remains subject to political pressure and the approval of the state and federal contractors. Over mere decades, construction of the CVP and SWP have deprived the Delta estuary of half its flow, turned the natural hydrograph on its head, reduced temporal and spatial variability, and deprived or eliminated crucial habitat. It is not surprising that an ecosystem that developed and prospered under a state of nature has been brought to the brink of destruction. No estuarine ecosystem in the world has survived this level of abuse. Water quality and water quantity are flip sides of the same coin. Increases or decreases in flow alter assimilative capacity and residence time and change the fate and transport of contaminants.</p>	<p>Note that Alternative 4A alters the structure of the adaptive management and monitoring program, relative to the BDCP proposal. Considerable scientific uncertainty exists regarding the Delta ecosystem, including the effects of CVP and SWP operations and the related operational criteria. To address this uncertainty, DWR, Reclamation, DFW, USFWS, NMFS, and the public water agencies will establish a robust program of collaborative science, monitoring, and adaptive management. It is assumed the Collaborative Science and Adaptive Management Program (AMMP) developed for Alternative 4A would not, by itself, create nor contribute to any new significant environmental effects; instead, the AMMP would influence the operation and management of facilities and protected or restored habitat associated with Alternative 4A. Please see Master Response 33 adaptive management and monitoring and Master Response 31 regarding Compliance with the Delta Reform Act.</p>
1610	111	<p>Hydrologic changes modify constituent concentration and bioavailability, which in turn can adversely impact the aquatic ecosystem and other beneficial uses.</p>	<p>Changes in water quality constituent concentrations due to changes in hydrology were addressed in the Upstream of Delta region with consideration to changes in flow, and in the Delta and SWP/CVP Export Service Areas due to changes in source water inflows.</p>
1610	112	<p>Water from the Sacramento River is significantly less polluted than water flowing into the estuary from other tributaries. Sacramento River water drawn across the Delta to the export</p>	<p>The concerns raised in this comment, changes in constituent concentration and changes in residence time, were components of the water quality assessment. The water quality assessment fully considered how the</p>

DEIRS Ltr#	Cmt#	Comment	Response
		pumps is a major reason water quality in the South Delta is better than it would otherwise be. Diversion of this relatively good quality water around the Delta will increase the concentration of existing constituents. It will also increase the residence time of water in the Delta thereby enhancing the opportunity for bioaccumulation and oxygen depletion to occur.	changes in source water fractions in the Delta would change constituent levels/concentrations, and what those changes would do to beneficial uses, as described in Chapter 8, Water Quality, Section 8.3.1, Methods for Analysis, and each of the constituent assessments provided in Impacts WQ-1 through WQ-34 in Chapter 8. Please see Master Response 14 for more information regarding Water Quality.
1610	113	The EIR/EIS and Delta Plan must fully analyze and discuss the likelihood of degradation of Delta water quality caused by alternative conveyance or increased exports.	The water quality assessment in the Draft EIR/EIS does make impact determinations relative to water quality degradation thresholds provided in Chapter 8, Section 8.3.2.3. Please see Master Response 14 regarding Water Quality, and please see Master Response 31 for more information regarding Compliance with the Delta Reform Act.
1610	114	Previous efforts to evaluate potential water quality impacts from proposed projects to modify the hydrology of the Delta have either ignored water quality, with the exception of salt, or relied upon models that track "particles" to evaluate water quality. However, the majority of pollutants identified as impairing the estuary are non-conservative dissolved forms of pesticides, mercury, nutrients or oxygen demand constituents. Conservative constituents like salt are unacceptable surrogates for the universe of chemical constituents and pathogens impairing in the Delta.	In the water quality assessment in Chapter 8, DSM2 output for the salinity-related parameter EC was only used to estimate changes in two other salinity-related parameters, bromide and chloride (these were also assessed via the mass-balance methodology). It was not used as a surrogate for mercury, pesticides, nutrients, or pathogens. Please see Master Response 14 regarding Water Quality and please see chapter 8L Pesticides, 8I Mercury, 8J Nitrate of the Final EIR/EIS for water quality evaluations.
1610	115	<p>Existing water criteria fails to address many issues that must be considered in considering impacts on aquatic life. For example:</p> <ul style="list-style-type: none"> <li>- Existing criteria fails to consider additive and synergistic properties of regulated chemicals that occur in concentration below criteria. For example, Delta water frequently contains a cocktail of as many as 15 pesticides, many of which interact additively or synergistically.</li> <li>- Adverse impacts to sensitive species, such as zooplankton, were not included in the development of many criteria.</li> <li>- There is limited information on chronic exposure to sublethal impacts of chemicals and mixtures of chemicals. Numerous studies in the scientific literature demonstrate adverse effects of chemical exposure well below water quality criterion.</li> <li>- Water quality criterion fails to address the chronic effects of multiple stressors acting on an already weakened aquatic ecosystem.</li> <li>- Chemical degradants, a product of chemical breakdown in the environment, are little understood but are frequently highly toxic.</li> <li>- Water quality criteria have been developed for only a small subset of the chemicals found in these waters. Of the approximately 100,000 chemicals registered for use in the United States, only about 200 are regulated with respect to water quality. The Priority Pollutant List is an artifact of a legal settlement several decades ago, has never been peer-reviewed and is an inadequate surrogate for the maelstrom of chemicals found in waterways today. These include pharmaceuticals and personal care products, industrial chemicals and other potentially hazardous constituents that have been identified as carcinogens, reproductive toxins, endocrine disruptors and immune suppressors, etc.</li> <li>- Criteria are frequently insufficiently protective for pollutants that bioconcentrate and/or bioaccumulate in tissue.</li> </ul>	The water quality assessment relies on applicable federal and state water quality criteria, as this represents the best available information for which to compare changes in constituents concentrations due to the project and assess potential effects of projected changes to beneficial uses, as described in Chapter 8, Water Quality, Section 8.3.1, Methods for Analysis. For constituents with no applicable water quality criteria (e.g., dissolved organic carbon, bromide, selenium), other relevant thresholds recognized by the scientific community (e.g., USEPA, state regulatory agencies) were applied. Please see Master Response 14 regarding Water Quality.

DEIRS Ltr#	Cmt#	Comment	Response
		- Many drinking water criteria are economically based and not health risk based.	
1610	116	Relocation of export facilities to the Sacramento River will increase residence time in the Delta. This increased residence time may encourage the growth of toxic blue-green algae, which has become a serious problem in recent years.	<p>Commenters raised several concerns with the discussion and assessment of the effects of the project alternatives on Microcystis blooms and associated toxicity in the affected surface water bodies. Based on public comments received on the Draft EIR/S, new Impacts WQ-32 and WQ-33 were added to the assessments of Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, and 9 in Chapter 8, Water Quality, and included with the assessments of Alternatives 4A, 2D, and 5A in Section 4 of the RDEIR/SDEIS. Common themes in the comments on the Microcystis assessment included:</p> <ol style="list-style-type: none"> <li>1. Adequacy of the assessment in the upstream of Delta region.</li> <li>2. Adequacy of the assessment in the Delta region.</li> <li>3. Potential for harmful microcystin levels in the San Francisco Bay.</li> </ol> <p>Please see Master Response 14 regarding Water Quality.</p>
1610	117	Bioaccumulating constituents like selenium and methyl-mercury or pollutants like DDT and dioxin will have more opportunity to work their way up the food chain. Increases in the concentration of mercury in fish tissue would further threaten the health of the Delta's large subsistence fishing community. Longer residence times will increase the timeframe for oxygen demanding constituents to reduce oxygen levels in channels already identified as impaired because of low dissolved oxygen.	<p>The EIR/EIS evaluates the potential effects, including bioaccumulation, of contaminants on fish and wildlife, including in Chapter 8, Water Quality, in impacts WQ-13 and WQ-14 for mercury and WQ-25 and WQ-26 for selenium. As discussed in Impact WQ-9, The relative degree of tidal exchange of flows and turbulence, which contributes to exposure of Delta waters to the atmosphere for reaeration, would not be expected to substantially change relative to Existing Conditions, such that these factors would reduce Delta DO levels below objectives or levels that protect beneficial uses. Further, as TMDL-related actions are implemented to address dissolved oxygen impairments, it is expected that dissolved oxygen conditions will improve in those impaired areas.</p> <p>For more information regarding indirect public health effects, such as the potential for increased uptake of methylmercury in target species of fish pursued by subsistence fisherman in the Delta please see Chapter 25 of the FEIR/EIS.</p>
1610	118	<p>An alternative conveyance facility and reduction in Sacramento inflow will impact dissolved oxygen in the Mokelumne River and Stockton Deep-Water Ship Channel. Presently, flow from the Sacramento is drawn into the ship channel via reverse flows in the San Joaquin River. Further exacerbating the problem will be an increase in nutrient loading into the ship channel. Since the recent Biological Opinion required the removal of the head of Old River barrier, a significant percentage of the high nutrient load in the San Joaquin River that previously reached the ship channel has been drawn down Old and Middle Rivers and exported south.</p> <p>Elimination or reduction of this "siphon" effect would also affect numerous other pollutants in the South Delta. Presently, some part of the pollutant load in the San Joaquin River is drawn to the pumps and exported south. Elimination of this siphon mechanism would likely increase the spatial distribution of water quality impacts into the Central Delta. For example, selenium concentrations might increase to levels comparable to those found in wildlife in Suisun Bay.</p>	<p>Please see Chapter 8 Impacts WQ-1, WQ-9, and WQ-25 for detailed information on the modeled effects of the proposed conveyance and operations on dissolved oxygen, ammonia, and selenium concentrations. . Also see Master Response 14 for information regarding Water Quality. Please see Appendix 3F Intake Location Analysis of the final EIR/EIS.</p>
1610	119	An alternative conveyance facility and the elimination of dilution flows will increase the concentration of salt in the South Delta channels further impacting the yield of Delta agriculture.	<p>The water quality assessment identifies changes in EC, and mitigation introduced for increases that would have adverse effects on agricultural uses. Please see Master Response 22 for Mitigation. Modeling exceedances of D-1641 water quality standards (at Emmaton for Alternative 4 H3 and NAA) are a result of CALSIM II limitations. Please see Appendix 8H Electrical Conductivity of the Final EIR/EIS for more detailed</p>

DEIRS Ltr#	Cmt#	Comment	Response
			information.
1610	120	An alternative conveyance facility will reduce salinity variability and encourage the spread of certain undesirable invasive species.	None of the modeling of EC (a salinity-related parameter) supports the commenter's statement. Modeling and assessment results show that seasonal and spatial variability in EC will continue to exist in the Delta.
1610	121	The Delta and its tributary streams are formally identified as impaired by a broad suite of pollutants. Water quality criteria have been developed for only a very small subset of the chemicals found in these waters. These criteria fail to adequately consider additive/synergistic, bioaccumulative and chronic/sublethal effects or multiple stressors acting on an already weakened aquatic ecosystem. Increased diversion or routing of good quality dilution flows around the estuary will result in increased concentration and residence time of pollutants. Increased residence time exacerbates the effects of toxic and bioaccumulative pollutants. Reduced diversion and increased Delta flow enhances flushing of pollutants and decreases pollutant concentration. The BDCP fails to comprehensively analyze and address potential impacts to fish, wildlife and human health from reduced water quality caused by loss of dilution, increased residence time and modified channel hydrology. It also fails to include a comprehensive antidegradation analysis required by the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. This EIR/EIS is seriously misleading, grossly inadequate, technically deficient and fails to meet the minimal CEQA and NEPA requirements for an environmental review document.	The water quality assessment relied, in part, on current water quality criteria/objectives for making conclusions about impacts of the alternatives, or other current scientific information in the absence of criteria/objectives, as this represents the best ability from which to make determinations regarding effects of water quality changes on beneficial uses. The water quality also addressed changes in bioaccumulative pollutants (mercury and selenium), and in response to comments, discussion of the effects of residence time changes on selenium was expanded for the alternatives. Finally, while a formal antidegradation analysis is beyond the scope of the EIR/EIS, degradation of water quality was addressed in each constituent assessment. Please see Master Response 14 for additional information regarding Water Quality and Final EIR/EIS chapter 8 for Water Quality information.
1610	122	CM1 is a misleading Conservation Measure. CM1 provides for the construction and operation of new north Delta water conveyance facilities to bring water from the Sacramento River to the existing water export pumping plants in the south Delta, as well as for the operation of the existing south Delta export facilities. Diversion of Sacramento River inflow under the Delta to facilitate the increased export of water cannot be justified as a Conservation Measure. Nor can it qualify as a HCP or NCCP Conservation Measure addressing compliance with state and federal Endangered Species Acts.	Please see Master Response 5 regarding CM1.
1610	123	There is no discussion in either the BDCP or EIR/EIS as to how Conservation Measures CM 2-21, which are predicated on uncertain public funding, which may or may not be implemented, which are unlikely to be fully successful and which are only analyzed to a programmatic level of analysis can be employed to mitigate for the impacts of a massive water diversion project that has been analyzed (if inadequately) to a project level of detail. Conservation Measures CM 2-21 will need to be analyzed to a project level of detail and funding and implementation will need to be assured in order to qualify for consideration in an HCP or NCCP.	Please see Master Response 2 for information on how the EIR/EIS mixes project vs. program level of detail. And please see Master Response 5 regarding BDCP conservation measures, and see Master Response 22 regarding Mitigation.
1610	124	Conservation Measures CM 2-21 together comprise a stand-alone publically funded project to restore the Delta's ecosystem and is not dependent on CM1. In fact, Conservation Measure CM2 and Conservation Measures CM 12-21 are not dependent on BDCP and are already underway and, in varying degrees, being approved, financed and managed by others. BDCP should not be seeking credit for these on going activities that are not dependent on BDCP or CM1. Nor should BDCP be seeking credit for Conservation Measures CM 3-11, which will be funded by the public purse and are also not dependent on BDCP or CM1.	Please see comment 1610-123 and see Master Response 5 regarding cost.
1610	125	None of the conservation measures CM 2-21 are likely to be as successful as predicted in the BDCP and EIR/EIS. For example, historical habitat restoration efforts have had questionable benefits and frequently provided habitat for undesirable non-native species, predators and	Please note that the new preferred alternative, 4A, no longer includes large-scale habitat restoration and would not be implemented as an HCP. Instead, elements of the BDCP HCP Conservation Measures would be implemented as Environmental Commitments to mitigate and offset potential effects of the preferred

DEIRS Ltr#	Cmt#	Comment	Response
		noxious vegetation. Numerous commentators have remarked that excessive diversions of water have changed the hydrology of the estuary into something resembling an Arkansas lake. Creating more "Arkansas lake" habitat will not restore the natural ecological processes that supported myriad native species over millennia.	alternative consistent with applicable state and federal laws and regulations. Under the preferred alternative, operations at the north Delta intakes will be required to comply with existing operating requirements, such as those included in D1641 and the existing biological opinion, in addition to any new criteria developed for the projects. The Adaptive Management and Monitoring Program under Alternative 4A will be available to potentially modify operational criteria if new science suggests such changes are warranted. Changes in operational criteria will consider reducing potential impacts and promoting environmental conditions favorable to listed species, in addition to water supply reliability.
1610	126	None of the conservation measures address the effects of increased Delta exports on the habitat and aquatic species of San Francisco or San Pablo Bays. This is a glaring omission, as numerous studies have documented the effects of Delta outflow on the circulation, water quality and productivity of San Francisco and San Pablo Bays and further reductions in outflow will exacerbate present adverse impacts caused by excessive upstream diversions.	Please see comment 1610-125. In addition, please see Master response 17 regarding Biological Resources. The Biological Opinion on Long-term operations of the Central Valley Project and State water Project is considered in the Cumulative Analysis (see Master Response 9), this program regulates outflow and restores habitat for Delta Smelt. Please see Master Response 14 regarding Water Quality.
1610	127	The uncertainty of success of proposed habitat restoration efforts are lavishly documented in comments by the Delta Science Program's Independent Review Panel report on the BDCP Effects Analysis, the Delta Independent Science Board's review of the draft EIR/EIS for BDCP, the Independent Panel Review of BDCP sponsored by American Rivers and the Nature Conservancy, the March 2014 comments submitted by the Pacific Fishery Management Council, the February 2014 comments by the California Advisory Committee on Salmon and Steelhead Trout, as well as numerous earlier comments by the National Research Council on adaptive management and the effects analysis, the red flag and progress comments by the National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. EPA, U.S. Corps of Engineers and comments on the EIR/EIS by the State Water Resources Control Board.	For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please see Master Response 33 regarding Adaptive Management and Monitoring and Master Response 9 Cumulative Impact Analysis.
1610	128	The underlying assumptions of habitat restoration are further brought into question by the evaluation of BDCP modeling by MBK Engineers in their presentation before the Delta Stewardship Council, which identified a number of flaws including the use of outdated models, the failure to accurately model climate change, the faulty assumptions of actual reservoir operations, the overrepresentation of outflow and underrepresentation of exports. The failure of BDCP models to accurately reflect anticipated changes in CVP and SWP operations with BDCP bring into serious question the assumptions of habitat restoration.	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Please see Master Response 30 regarding Modeling, Master Response 19 regarding Climate Change, and Master Response 28 Operational Criteria.
1610	129	BDCP modeling demonstrates that, under the proposed alternative, Delta outflow will decrease, exports will increase, X2 will migrate eastward, residence time and pollutant concentration will increase throughout the Delta, salinity levels and violations of present fish and agricultural salinity standards will increase, survival rates of winter-run, spring-run and Sacramento and San Joaquin fall-run salmon smolts will decrease, and concentrations of mercury and selenium in bass and sturgeon will increase.	Please see Master Response 44 for information regarding the Decision Tree which was the operation selection tool for outflow under the BDCP. Model results show that long-term average Delta outflow under Alternative 4 (scenarios H1 - H4 at LLT) would be similar to that under Existing Conditions and No Action Alternative, with a minor increase in flows during the winter months and a minor reduction in flows during the spring months relative to Existing Conditions due to the shift in system inflows caused by climate change, as well as increased water demand expected in the LLT. In wet water year types, this trend is more evident, while in other water year types, Delta outflow under Existing Conditions and the No Action Alternative is generally within the range of Alternative 4 H1 - H4 scenarios. For more information and specific modeling results for all Alternatives, please refer to Chapter 5, Water Supply, and Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix. The incremental changes in Delta outflow under Alternative 4A compared to baseline conditions are a function of both the facility and operations assumptions, including north Delta intakes capacity of 9,000 cfs, OMR flow requirements, Fall X2 requirements, and the reduction in water supply availability due to increased north of Delta urban demands, sea level rise, and climate change (the last three assumptions, plus Fall X2 requirements, are included in both the No Action Alternative (ELT) and Alternative 4A, but not in Existing Conditions). Results for the range of changes in Delta outflow under Alternative 4A are presented in more detail in Appendix 5A,

DEIRS Ltr#	Cmt#	Comment	Response
			<p>BDCP/California WaterFix EIR/S Modeling Technical Appendix. Changes in long-term average Delta outflow under Alternative 4A (ELT) as compared to the No Action Alternative (ELT) and Existing Conditions are shown in Figures 5-37 through 5-39 and Tables 5-10 through 5-12 in Chapter 5.</p> <p>Please see Chapter 8 Water Quality of the Final EIR/EIS.</p>
1610	130	<p>Types of Habitat Restoration and Enhancement Actions That Were Evaluated for Inclusion in the Conservation Strategy (Page 3A-13, Lines 19-32):</p> <p>The BDCP EIS/EIR evaluated several habitat restoration and enhancement actions to balance the effects of the implementation of CM-1, including:</p> <ol style="list-style-type: none"> <li>1. Restoring intertidal habitat to establish vegetated marshes and associated sloughs to increase habitat diversity and complexity, food production, and in-Delta productivity, and rearing habitat for covered species;</li> <li>2. Increasing hydraulic residence time and tidal exchange in the Delta sloughs and channels by changing circulation patterns to increase primary productivity and foodweb support and improve turbidity conditions for delta smelt and longfin smelt;</li> <li>3. Continued reliance on south Delta exports in drier years and late spring and summer of wetter years will continue stressors on pelagic species and their tidal aquatic habitats. Any shift in the Low Salinity Zone upstream toward the North Delta intakes could put added pressures on the smelt populations because the screens will not protect larvae and early juvenile smelt whose habitat includes freshwater tidal pelagic habitats;</li> <li>4. Increasing the amount of functional floodplain habitat to increase the quantity and quality of rearing habitat for salmonids and sturgeon and spawning habitat for Sacramento splittail, and generate food resources for pelagic species;</li> <li>5. Providing adequate water quality and quantity within the Delta at appropriate times to help conserve resident native fishes and improve rearing and migration habitats for salmon moving through the Delta.</li> </ol> <p>The BDCP holds little promise in providing more floodplain habitats that would be inundated by tidal or flood flows especially in the Yolo Bypass (CM2). More floodplain inundation in the East Delta and Yolo Bypass without improved access in CM2 would not significantly benefit salmon growth, survival, and production from the Delta. Target water quality objectives in the Delta include cooler waters, maintaining the Low Salinity Zone to the west of export facilities in both the North and South Delta, increasing the size of the LSZ, keeping low-productivity reservoir water out of the Delta, and retaining higher turbidity, higher productivity, low salinity water within the Delta's pelagic habitat. Retaining a salinity gradient and positive downstream flow through the Delta in winter and spring are necessary to improve salmon survival through the Delta. Such conditions are not provided under CM1 or other conservation measures.</p>	<p>The Recirculated Draft EIR/Supplemental Draft EIS released in 2015 introduced a new preferred alternative, 4A, which does not include a HCP or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Alternative 4A would implement substantially less habitat restoration than Alternative 4. Please refer to Chapter 3, Description of Alternatives for more detail. Please refer to Master Response 14 regarding salinity. Please see Master Response 5 regarding BDCP Conservation Measures.</p>
1610	131	<p>Broad Conservation Goals and Strategy (Chapter 1, Page 1-2 and 1-3; and Appendix 3A, Pages 3A-2, lines 38-42 and 3A-3, lines 1-21):</p> <p>The conservation goals and the strategy that they chose would not work to accomplish what needs to be done to improve habitat. For example, the BDCP EIS/EIR fails to increase the quality, availability, spatial diversity, and complexity of aquatic habitat in the Delta. CM1-11</p>	<p>Please see Master Response 5 regarding BDCP Conservation Strategies.</p> <p>Controversy exists between conservation goals and the reasonable use of natural resources and lands for economic development. The BDCP sets out extensive biological goals and objectives, including specific measurable targets developed on the basis of the best available scientific information. These goals and objectives are developed through a collaborative effort between state and federal agencies, local</p>

DEIRS Ltr#	Cmt#	Comment	Response
		if implemented as proposed would not lead to increased habitat quality and complexity in a timely manner. The main limitation is the lack of potential improvement to pelagic open water habitat under CM1 and lack of the indirect benefits of the other conservation measures to key Low Salinity Zone pelagic habitats of the West and Central Delta.	governments, community groups, and private interests, which bring varying interests and concerns. This issue is somewhat reduced under Alternatives 4A, 2D, and 5A because of the revised approach that limits habitat improvements to those needed to offset conveyance facility effects. Generally, land-based impacts would be reduced under Alternatives 4A, 2D, and 5A when compared with the BDCP alternatives. These comparative changes are provided in the land-use based analysis in Chapters 9, 10, 12 through 20, and 24 through 27. These chapters address terrestrial biological resources, land use, agricultural resources, recreation, cultural resources, mineral resources, paleontological resources, and other resources (see chapter 1 Introduction of the Final EIR/EIS).
1610	132	The BDCP EIS/EIR fails to create new opportunities to restore the ecological health of the Delta by modifying the water conveyance infrastructure. The potential to restore the ecological health of the Delta is severely restricted by retention of the south Delta export facilities.	The project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies. It is important to note that the project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage.
1610	133	The potential for Delta pelagic and shoreline habitats to improve is also greatly restricted by the proposed large fine mesh passive screen intake infrastructure in the North Delta.	The amount of water that can be diverted from the new north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the water contractors. Operations for the proposed project would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as described in the 2008 and 2009 BiOps (RDEIR/SDEIS Executive Summary ES.2.2). In addition to permitting constraints on daily operations of the SWP and CVP, DWR must maintain proper performance and bypass flows across fish screens when endangered and threatened fish species are present within the north Delta facilities area. The intake fish screens drive the overall size of the intake structure on the riverbank, and have been numbered and sized to permit water to flow through the screens within a predetermined flow regime set by California Department of Fish and Wildlife and NMFS fish screen criteria (BDCP Appendix 5B Section 3.B.3.3).
1610	134	The BDCP EIS/EIR fails to directly address key ecosystem drivers in addition to freshwater flow patterns rather than manipulation of Delta flow patterns alone. Freshwater flow patterns in the Delta under CM1 remain the critical ecosystem driver in the Delta. Enhanced ecosystem inputs from new margin wetland and floodplain habitats will not be of benefit if they cannot contribute to the pelagic habitats of the West and Central Delta. Under the BDCP proposal both Suisun Marsh and Cache Slough Complex would be more isolated from contributing to the LSZ than under present conditions.	The analyses included in the draft BDCP and EIR/EIS account for the expected abiotic habitat conditions in the different portions of the Plan Area, e.g., by considering salinity in and adjacent to restored areas in the ROAs. See, for example, section 5.E.4 Conservation Measure 4 Tidal Natural 3 Communities Restoration in Appendix 5.E of the public draft BDCP, incorporated by reference into the EIR/EIS.  Impacts on EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based.
1610	135	The plan outlined by the BDCP EIS/EIR will not improve connectivity among aquatic habitats, facilitate migration and movement of covered fish among habitats, and provide transport flows for the dispersal of planktonic material (organic carbon), phytoplankton, zooplankton, macroinvertebrates, and fish eggs and larvae. The proposed North Delta exports will reduce connectivity and create a serious impediment to migration and movement of salmon, smelt, steelhead, sturgeon, and many other important fish of the Central Valley. The North Delta diversions and continuation of South Delta diversions will entrain vast amounts of biological organisms, nutrients, and other essential elements of Bay-Delta productivity.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The evaluation of the effects of Alternative 4A are included in the RDEIR/SDEIS, with specific acknowledgement that real-time monitoring and associated triggers would allow for adjustments to the North Delta Diversion operations to minimize and avoid impacts to migrating fish. Effects would be mitigated with a nonphysical barrier at the entrance to Georgiana Slough, which would reduce the entry of outmigrating juvenile salmonids into the low-survival interior Delta. Loss of habitat would be compensated for by tidal habitat restoration and channel margin restoration. Additionally, predation at the North Delta Diversion was acknowledged as a potential effect, which would be mitigated with localized reduction of predatory fishes to minimize predator density. Please see Master Response 22 regarding Mitigation.

DEIRS Ltr#	Cmt#	Comment	Response
1610	136	The timing of synchrony (water temperature gradients, salinity gradients, turbidity, and other environmental cues) is a key goal to improving Delta health.	The comment does not raise any environmental issues related to the environmental analysis. However, please see Master Response 14 for more information regarding Water Quality.
1610	137	The BDCP EIS/EIR fails to improve conditions for fish and their food resources in the upstream rivers, Delta, and Suisun Bay. The proposed North Delta exports and continued significant reliance on South Delta exports will further add to reduced synchrony of natural environmental cues to which native fishes are adapted. Food sources will be reduced, water temperatures will increase, salinities will increase, turbidity will be further reduced, and environmental cues will be further disrupted.	For more information regarding impacts to resource areas, such as water quality and aquatic resources, please see Chapter 8 and 11 of the FEIR/EIS, respectively. RDEIR/SDESIS 4.3.4 (4A) and Final EIR/EIS Chapter 8, Section 8.3.4, describes whether concentrations of various water quality constituents are expected to increase or decrease with the project, relative to existing conditions and the No Action Alternative. To the extent that concentrations of various water quality constituents are expected to increase, it is described whether these increases are expected to result in impacts to beneficial uses of water in the Delta. For constituents for which adverse impacts were expected, mitigation and other commitments, such as additional evaluation and modeling and consultation with water purveyors to identify additional measures to avoid and minimize or offset these impacts, were introduced to address those impacts. Additionally, adding intakes in the North Delta will allow for operational flexibility that can improve natural flow in the Delta and avoid impacts to migratory fish based on real time data and operations.
1610	138	Despite voluminous information regarding the stressors affecting fish and aquatic life in the Delta, the BDCP EIS/EIR fails to adequately address these issues. Delta smelt have suffered relentlessly from the direct and indirect effects of past and present levels of exports from the Delta. A switch of exports to the North Delta upstream of the main pelagic habitats of the smelt will simply increase the risk of smelt to South Delta exports and further degrade smelt critical habitat in the West, Central, and North Delta, as well as Suisun Bay. The North Delta intakes will add a significant source of mortality to Sacramento Valley listed salmon and steelhead that does not exist today. Continuation of South Delta exports does little to alleviate existing stressors that are related to fish growth, survival, and reproduction. Freshwater Delta inflow from the Sacramento River will decrease and inflow from the San Joaquin River will increase, thus contributing to even warmer water in the Delta from spring through summer and early fall. LSZ pelagic habitat of delta smelt would be drawn upstream into the influence of north Delta diversions and screening systems (which do not protect smelt). Pelagic low-salinity cool water Delta habitat would also suffer under new North Delta exports and continuing South Delta exports to the point where at a minimum no benefits would accrue. (Appendix 5B forecasts little if any benefits from reduced entrainment to delta smelt from the BDCP.) As for salmon, there will be more opportunity for the populations from the Sacramento River system to interact with the project screen systems than under the present configuration. Plus continuation of the south Delta exports maintains most of the present risks to these populations.	An RDEIR/SDEIS was developed and circulated in 2015, which included 3 new Alternatives including the new preferred alternative, 4A. The evaluation of the effects of Alternative 4A are included in the RDEIR/SDEIS, and address the potential stressors alluded to by the commenter, none of which are found to be significant with implementation of environmental commitments. Please see Chapter 11 Alternative 4A Fish and Aquatic Resources including, Impact AQUA-3: Effects of Water Operations on Entrainment of Delta Smelt, AQUA-4 Effects of Water Operations on Spawning and Egg Incubation Habitat for Delta Smelt, AQUA-5: Effects of Water Operations on Rearing Habitat for Delta Smelt, AQUA 6: Effects of Water Operations on Migration Conditions for Delta Smelt, AQUA-7 Effects of Construction of Restoration Measure on Delta Smelt. Similarly, Chapter 11 discusses winter-run Chinook, Spring run Chinook, and Fall/late Fall run chinook impacts.
1610	139	The BDCP EIS/EIR fails to develop alternatives to improve habitat conditions for fish in and downstream of the Delta (in the low salinity zone of the estuary in Suisun Bay) through the integration of water operations with physical habitat enhancement and restoration. Major habitat enhancements of the proposed conservation measures are isolated from the LSZ (low salinity zone) of the estuary. Proposed water operations and infrastructure (including the proposed North Delta export facilities) would further isolate, not integrate, proposed habitat improvements.	The analysis for CMs 2-21 was completed at a programmatic level, as described in Section 4.1.2 of Chapter 4, Approach to the Environmental Analysis. Also, the RDEIR/SDEIS, released in 2015, introduced a new preferred alternative, 4A, which does not include a HCP or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Therefore the CMs to which the commenter is referring would not be implemented under the proposed project. Please see Master Response 4 regarding Alternative Development.
1610	140	The BDCP EIS/EIR fails to emphasize natural physical habitat and biological processes that would support and maintain species covered by the Plan (i.e., covered species) and their habitat. The biological processes and habitats of the LSZ in the West and Central Delta are virtually ignored in the conservation measures. The natural pelagic habitats so important to Delta fishes are virtually ignored in the BDCP.	To the extent that there is potential scientific evidence supporting a relationship between the LSZ and specific species, those analytical methods have been incorporated into the impact assessment. Please see Master Response 5 regarding BDCP Conservation Measures.

DEIRS Ltr#	Cmt#	Comment	Response
1610	141	<p>BDCP conservation measures applicable to securing a take permit for CM1 (Water Facilities and Operation) include CM2 (Yolo Bypass Enhancement), CM3 (Natural Communities Enhancement), CM4 (Tidal Marsh Creation/restoration), CM5 (Seasonal Floodplain Creation/restoration), CM6 (Channel Margin Enhancement), CM7 (Riparian Restoration), CM10 Non-tidal Marsh Restoration) and CM11 (Natural Community Enhancement). Unfortunately, only CM1 has received a project level evaluation and even that evaluation is sadly lacking in specific and necessary details. The lack of project-level analysis and disclosure in the other conservation measures effectively piecemeals the project and defers mitigation and assurances in violation of HCP/NCCP permitting requirements. All components should receive the same level of detail.</p> <p>Additionally, it appears that a number of habitat restoration projects in the above conservation measures are in various stages of planning and implementation and will likely proceed with or without BDCP. Again, BDCP should not seek credit for habitat projects that will be likely implemented, even should CM1 not go forward.</p> <p>BDCP conservation measures CM 12-21 are, in varying degrees, ongoing and should not be included in BDCP. They already have varying levels of CEQA or NEPA certification and are being directed or managed by others, do not depend upon CM1 and BDCP should not be seeking credit for them. That said; none of them have achieved their envisioned or desired results.</p>	<p>Project plans have not advanced yet to the point where engineering and design work are complete. Environmental review is typically conducted based on less complete plans, because complete engineering and design work is not required for impact assessment, and most lead agencies are reluctant to invest in complete engineering and design work before they know that their projects have received the entitlements and permits needed to proceed towards construction. The originally proposed habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as part of the Proposed Action, except to the extent required to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b). However, restoration actions that are independent of Proposed Action will continue to be pursued as part of existing projects and programs. Examples of these include the 2008 and 2009 USFWS and NMFS BiOps (e.g., Yolo Bypass improvements and habitat enhancements, 8,000 acres of tidal habitat restoration), (2) California EcoRestore, and (3) the 2014 California Water Action Plan.</p> <p>Please see Master Response 45 regarding Permitting, Master Response 2 Project Level vs. Program Level, and Master Response 8 Lead Agencies Analyzed the Project as a Whole.</p>
1610	142	<p>CM1 is essentially a water conveyance project masquerading as a Conservation Measure. It will reduce outflow and exacerbate already poor Delta hydrological habitat that is essential for key fish species and their critical habitats. By drawing X2 further eastward, CM1 will increase the habitat expanse of Potamocorbula amurensis, the saltwater clam that invaded the estuary in the 1980s to the detriment of primary and secondary productivity and fish production.</p>	<p>Please see comment 1610-13. The BDCP conservation strategy includes CM1 which is strategy that includes a proposal for water conveyance facilities and CM2-CM21 include measures for restoration and measures to reduce various stressors. Please see Chapter 1 Introduction of the Final EIR/EIS.</p>
1610	143	<p>Higher salinities and reduced outflow will expand the habitat of an array of invasive aquatic vegetation that has expanded throughout the Delta and established itself in recent habitat restoration areas. Invasive aquatic vegetation has reduced productivity and provided habitat for an assortment of non-native predatory fish species.</p>	<p>The effects of the alternatives on invasive aquatic vegetation is described for each alternative in the EIR/EIS. For more information regarding impacts to water quality please see Chapter 8 of the FEIR/EIS. For more information regarding CALSIM II and DSM2 modeling please see Appendix 5A of the FEIR/EIS. In addition, please see Master Response 14 regarding Water Quality.</p>
1610	144	<p>CM-1 will increase residence time and will exacerbate already poor water quality conditions and significantly increase the frequency of violations of water quality standards established to protect fish and other beneficial uses of water.</p>	<p>For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. Please see Master Response 14 regarding Water Quality and Chapter 8 Water Quality of the Final EIR/EIS. The methodology used to determine residence time is described in BDCP Appendix 5C, Section 5C.4.4.7, Residence Time</p>
1610	145	<p>Existing water exports from the south Delta have altered Delta hydrology, degraded water quality, expanded the range of invasive species, reduced plankton productivity, exported primary production, decreased suspended sediment and entrained vast numbers of fish. According to the California Department of Fish and Wildlife's Fall Midwater Trawls, between 1967 (the beginning of SWP exports) and 2013, population abundance indices of striped bass, delta smelt, longfin smelt, American shad, splittail and threadfin shad have declined 99.6, 95.6, 99.8, 90.9, 98.5 and 97.8%, respectively. During the same period, the Summer Towntnet Survey reveals that abundance indices for striped bass and delta smelt declined 98.2 and 94.2%, respectively. Native lower trophic orders and populations of wild winter-run and spring-run Chinook salmon show similar orders of magnitude declines.</p>	<p>Please see comment 1610-59. Entrainment of delta smelt is regulated by the USFWS 2008 BiOp, which includes improvements in water export processes, fish screens, and fish salvage operations at the South Delta facilities. There is expected to be no difference between no action alternative and alternative 4A. Other improvements to SWP/CVP facilities are expected to occur in the future are expected to be less than significant. The features of the fish screens are described in more detail in Section 3.6.1.1 of Chapter 3, Description of Alternatives. Please see Chapter 11 Alternative 4A Fish and Aquatic Resources.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The majority of Delta exports will continue to come from the south Delta export facilities. During dry years, south Delta exports will significantly exceed north Delta exports. Yet, there is no conservation measure to upgrade the existing 1950s-technology fish screens at south Delta facilities to state-of-the-art screens, as required by the CalFed Record of Decision. It is highly uncertain whether or not the proposed new fish screens in the north Delta will work as envisioned. The new screens will require a variance from present National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (DFW) fish screen requirements. BDCP has rejected the recommendations of the NMFS and the Fish Facilities Technical Team to phase in installation of the new screens to see if they work or can be legally permitted.</p>	
1610	146	<p>The assessment models in the CM1 proposed operations include the existing restrictions including operational criteria prescribed in the two OCAP [Operational Criteria and Plan] Biological Opinions and the state's D-1641 water quality standards. However, these are the same restrictions and operating criteria that contributed to many of the present problems, including the Pelagic Organism Decline (POD).</p> <p>A fundamental problem with CM1 is that it does not enhance Delta outflow, but rather decreases outflow to enhance exports. Outflow is the common denominator of many intertwined processes and influences distribution, condition and abundance of numerous species. [see Footnote 72] The failure to increase outflow will likely undermine any improvements that may occur with other Conservation Measures.</p> <p>[Footnote 72: "Outflow is thus the common denominator among the multitude of intertwined processes. In recognizing this, the Panel is unified in agreeing that the distribution, condition, or abundance of some estuarine organisms are statistically related to outflow and X2 because these two indicators reflect underlying physical and ecological processes that more directly affect the estuarine organisms. In statistical terminology, a number of important ecological factors "co-vary" with outflow and X2 and are more proximal influences on organism distribution, condition, and abundance. For example, some biotic indices may correlate with X2 because their distributions are driven by properties (for example salinity) that co-vary with X2, or because seasonal trends in X2 happen to coincide with inherent reproductive seasonality." (Workshop on Delta Outflows and Related Stressors Panel Summary Report, May 2014)]</p>	<p>Please see comment 1610-59, and Master Response 5 regarding CM1. The incremental changes in Delta outflow under Alternative 4A compared to baseline conditions are a function of both the facility and operations assumptions, including north Delta intakes capacity of 9,000 cfs, OMR flow requirements, Fall X2 requirements, and the reduction in water supply availability due to increased north of Delta urban demands, sea level rise, and climate change (the last three assumptions, plus Fall X2 requirements, are included in both the No Action Alternative (ELT) and Alternative 4A, but not in Existing Conditions). Results for the range of changes in Delta outflow under Alternative 4A are presented in more detail in Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix. Changes in long-term average Delta outflow under Alternative 4A (ELT) as compared to the No Action Alternative (ELT) and Existing Conditions are shown in Figures 5-37 through 5-39 and Tables 5-10 through 5-12 in Chapter 5.</p> <p>To summarize changes in Delta outflow under Alternative 4A, late-fall and winter outflows remain similar or show minor reductions in Alternative 4A (ELT) compared to No Action Alternative (ELT) and are slightly higher relative to Existing Conditions. In the spring months, outflow would remain similar under Alternative 4A (ELT) as compared to No Action Alternative (ELT), and would be slightly reduced compared to Existing Conditions. In the fall months, outflow under Alternative 4A would increase relative to Existing Conditions, and as compared to the No Action Alternative (ELT), would be similar because of Fall X2 requirements in wet and above-normal years.</p>
1610	147	<p>BDCP is pregnant with uncertainty, as evidenced by comments by the Delta Science Program's Independent Review Panel report on the BDCP Effects Analysis, the Delta Independent Science Board's review of the draft EIR/EIS for BDCP, the Independent Panel Review of BDCP sponsored by American Rivers and the Nature Conservancy, as well as numerous earlier comments by the National Research Council on adaptive management and the effects analysis, the red flag and progress comments by the National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. EPA [Environmental Protection Agency], U.S. Corps of Engineers and comments on the EIR/EIS by the State Water Resources Control Board.</p>	<p>The Lead Agencies acknowledge that uncertainty is inherent in any planning effort of this geographic and temporal scale. However, DWR strived to use the best available science throughout the effects analysis, consistent with the requirements of the ESA. Additionally, the official public review process for the proposed project provides an opportunity for formal public comment on the proposed project and project alternatives. Public and agency comments on the public draft have led to further refinement of the proposed project, as evidenced in the RDEIR/SDEIS. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>
1610	148	<p>Failing to acknowledge the enormous uncertainties inherent in CM-1 construction and operation and waiting to address uncertainty until sometime later through a vague undefined decision tree and adaptive management process is unacceptable. Especially, when all four decision tree operational alternatives will lead to reduced outflow in the long-term. Especially, when BDCP has refused to release the Implementing Agreement in</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5. Please see comments 1610-146 and 1610-147. In addition please see Master Response 44 regarding the Decision Tree under BDCP and Master Response 33 regarding Adaptive Management and</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>time for public review prior to the public review draft of the BDCP, as required by the 2006 Planning Agreement regarding the BDCP. [see Footnote 73] Especially, when adaptive management programs have historically frequently failed to achieve desired results. [see Footnote 74]</p> <p>[Footnote 73: The Implementing Agreement includes specific provisions for: conditions of species coverage; the long-term protection of any habitat reserves or other measures that provide equivalent conservation; implementation of mitigation and conservation measures; adequate funding to implement the plan; terms for suspension or revocation of the take permit; procedures for amendment of the BDCP, Implementing Agreement, and take authorizations; implementation of monitoring and adaptive management; oversight of BDCP effectiveness and funding; and periodic reporting.]</p> <p>[Footnote 74: See Delta Independent Science Board: Review of the Draft EIR/EIS for the Bay Delta Conservation Plan, May 2014 and National Research Council: A Review of the Use of Science and Adaptive Management in California's Draft Bay Delta Conservation Plan, 2011 and Delta Science Program Independent Review Panel Report, BDCP Effects Analysis Review, Phase 3, March 2014.]</p>	Monitoring. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.
1610	149	Existing water export operations by BDCP project proponents have frequently violated promulgated water quality and flow standards established to protect fisheries and other beneficial uses. These include, San Joaquin River and south and west Delta salinity objectives protective of agriculture, Delta and Suisun Marsh salinity objectives protective of fish and wildlife, Delta outflow objectives, Sacramento and San Joaquin River flow objectives and objectives limiting exports and establishing inflow/export ratios. The State Water Resources Control Board has never taken enforcement action for thousands of documented violations of these water quality standards. There is no discussion or assurances in BDCP regarding compliance with water quality violations or how or whether CM-1 will comply with water quality standards in the future.	Please see Master Response 14 regarding Water Quality, Master Response 34 Beneficial use of Water, and Master Response 5 regarding CM1. In addition, see Master Response 8 regarding how SWRCB and CDFW's flow analysis/reports were considered in the BDCP. Please see Master Response 17 Biological Resources for a discussion about outflow and how NCCP standards. Please see Chapter 8 Water Quality of the Final EIR/EIS for a description of flow standards.
1610	150	Nothing in BDCP and CM1 and associated Conservation Measures demonstrates or provides assurances that CM1, in conjunction with continued south Delta exports, will alleviate present downward trends, let alone reverse these trends and begin restoration of the Delta ecosystem to meet the requirements of an HCP or NCCP.	Please see Master Response 5 regarding CM1 and comment 1610-59.
1610	151	CM2 is designed to mitigate a long list of identified problems on the Yolo Bypass and Cache Slough that were, in significant measure, created by flood control system projects. The flood control system should mitigate these problems. In any case, a number of these valuable and important activities are already underway, are being financed and managed by others and can move forward with or without CM1. BDCP should not be latching on to ongoing projects or taking credit for them.	Note that Alternative 4A does not propose any actions in the Yolo Bypass and thus none of the provisions of CM2 would be implemented. Please see Master Response 5 regarding BDCP Conservation Measures.
1610	152	CM2 is only analyzed at a programmatic level. Many of the proposed projects are highly speculative, may or may not be implemented and have uncertain likelihood of being funded. They cannot comply with HCP or NCCP requirements unless they can demonstrate adequate assurances of funding and implementation.	Please see comment 1610-28 and 151. In addition, please see Master Response 2 regarding Program Level vs. Project Level.
1610	153	There is no Restoration Opportunity Area (ROA) for 30 miles of the central tidal Bypass and non-tidal northern Bypass where tidal and non-tidal wetlands and seasonal inundated habitat could be added with benefits to young salmon that would be passing into the Bypass via the Fremont Weir. Nor are there proposals to address the many water diversions in the	The Restoration Opportunity Areas are conceptual in nature. Restoration planning activities within the ROAs would occur over the permit duration and would be determined on a site-by-site basis via subsequent environmental documents. Not all lands within the ROAs would be restored through project

DEIRS Ltr#	Cmt#	Comment	Response
		Bypass that entrain salmon and smelt. Many of the diversions in the south end have unscreened tide gates.	implementation.
1610	154	The Ship Channel that runs for over 20 miles along the east side of the lower Bypass and the Tule Canal that runs within the east side of the Bypass are important smelt spawning and early rearing habitats, yet they suffer from poor habitat and water quality conditions. The BDCP ignores addressing these issues. The entire Bypass, Cache Slough, and Ship Canal suffer poor water quality from stormwater and agricultural return-flow discharges in winter, spring, and summer that degrade the smelt and salmon habitats. The Bypass also receives significant methylmercury loading that bioconcentrates in fish tissue. These issues have been long known and amply documented but existing regulatory programs have failed to achieve anticipated results. Failure to ensure that these problems are adequately addressed increases the likelihood that many of the CM2 improvements may be wasted or may even be detrimental to overall fish survival and production.	Please see Master Response 5 regarding BDCP Conservation Measures. The Deep Water Ship Channel has historically low Oxygen levels. Accordingly, the ship channel is listed in the Clean Water Act 303(d) and a TMDL is associated with it. One component of the TMDL is the implementation of an aeration device. There have been some concerns that raised flows on the San Joaquin River at Stockton may increase causing the location of the minimum DO point to shift downstream. Figure 8.85a shows a box and whisker plot, the results of this are that the flows do move somewhat, but generally within range under existing conditions. Over all, assuming continued operation of the aeration facilities the alternative is not expected to have a substantial effect on DO at the Deep Water Ship Channel. Please see Chapter 8 Water Quality of the Final EIR/EIS for additional information.
1610	155	CM3 proposes to provide a mechanism and guidance to establish a reserve system by acquiring lands for protection and restoration to meet biological goals and objectives addressed under the BDCP. However, no specific properties have been identified for acquisition in the BDCP, although Restoration Opportunity Areas have been identified. Goals for establishing habitat include: 27,000 acres of tidal perennial aquatic; 932 acres of tidal mudflat; 6,000 acres of tidal brackish emergent wetland; 24,000 acres of tidal freshwater emergent wetland; 4,300 acres of valley/foothill riparian; 100 acres of non-tidal perennial aquatic; 670 acres of non-tidal freshwater perennial emergent wetland; and unknown acres of other seasonal wetland.	Please see Master Response 5 regarding BDCP Conservation Measures. Under Alternative 4A, 2D, and 5A Conservation Measure 3 is Environmental Commitment 3. CM3 is meant to result in the protection of several habitats, including wetlands, vernal pool, riparian, and grassland communities, which would help in offsetting impacts from the proposed project to recreational and terrestrial resources (see Appendix 3B of the Final EIR/EIS). Specific properties have not been mentioned in the Final EIR/EIS. Please see Master Response 3 for further information regarding the level of detail provided in the EIR/EIS Analysis.
1610	156	CM-3 is essentially a conceptual wish list. It has only been analyzed to a programmatic level. Specific properties have not been identified nor specific plans developed. Potential adverse impacts and possible mitigation measures have not been identified or analyzed. If implementation proceeds, it will lag far behind the construction of CM-1. Funding is not assured and is dependent on future state and federal authorizations. Given the lack of success of numerous previous habitat restoration projects in the Delta, implementation is unlikely to achieve the 100% success rate envisioned by BDCP.	Please see comment 1610-155 as well as Master Response 2 Project Level vs. Program Level.
1610	157	Habitat restoration is not simply acres of new terrain or physical structure. Habitat is the quantity and quality of water flowing through terrain. Open water habitat is critically important, especially for pelagic species, but largely ignored in BDCP's conservation measures. It is highly unlikely that conservation measures CM 2-11 can mitigate for the significant reduction in the inflow of relatively good quality water to the estuary caused by the diversion of Sacramento water through tunnels under the Delta. As previously noted, BDCP modeling demonstrates that those inflow reductions will: decrease outflow; move X2 and the low salinity zone's crucial habitat for pelagic species eastward; increase the concentration of pollutants and the residence time for pollutants to interact with the ecosystem; reduce smolt survival rates for winter-run, spring-run and Sacramento and San Joaquin fall-run salmon and increase the bioconcentration of mercury and selenium in fish tissue. These significant and unavoidable impacts may be dismissed in environmental review by adopting statements of overriding consideration. They cannot be dismissed in securing an HCP or NCCP, when they would not occur in the absence of the project.	Please see Master Response 14 regarding Water Quality and Master Response 30 for Modeling. Model results show that long-term average Delta outflow under Alternative 4 (scenarios H1 - H4 at LLT) would be similar to that under Existing Conditions and No Action Alternative, with a minor increase in flows during the winter months and a minor reduction in flows during the spring months relative to Existing Conditions due to the shift in system inflows caused by climate change, as well as increased water demand expected in the LLT. In wet water year types, this trend is more evident, while in other water year types, Delta outflow under Existing Conditions and the No Action Alternative is generally within the range of Alternative 4 H1 - H4 scenarios. For more information and specific modeling results for all Alternatives, please refer to Chapter 5, Water Supply, and Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix.
1610	158	The West Delta ROA (Restoration Opportunity Area) contains virtually all the dry year spring-summer-fall critical habitats of the delta smelt and much of the winter-spring habitat	Restoration Opportunity areas (ROAs) are locations in the Plan Area considered most appropriate for restoration of tidal habitats and within which restoration goals for tidal and associated upland natural

DEIRS Ltr#	Cmt#	Comment	Response
		<p>of rearing salmon in the Delta. These large pelagic habitat units and many miles of shorelines and shoals of the West Delta are critical to the success of these species as well as the BDCP. BDCP documents describe the West Delta as an integral part of the "North Delta Arc of Native Fishes" (Figure 1). Yet, inexplicably, the West Delta ROA is virtually ignored in CM-3 and other conservation measures. Over 50 miles of shoreline, half of which is un-leveed and "natural," are completely ignored, as is thousands of acres of important pelagic open-water habitat of the West Delta. These are critical areas heavily used by salmon and smelt in the Delta, especially in dry years when populations are highly stressed by low Delta outflow. In these drier years, the West Delta is especially critical habitat, given the high salinities of Suisun Marsh and the Bay and the fact that the Cache Slough complex in the north Delta is subject to lethal temperatures. At such times the Low Salinity Zone (LSZ) lies almost entirely within the West Delta. The remaining LSZ habitat is completely ignored, as it is in the Central Delta and does not have an ROA.</p> <p>The LSZ is supposed to be the most productive and prolific area of an estuary. However, as BDCP acknowledges in Chapter 5, primary production in the West Delta ROA is currently the second lowest of the ROAs. BDCP models predict that production will increase but will remain lower than the average of the other ROAs. The BDCP states: "Tidal habitat restoration in the West Delta ROA could increase local food production for rearing salmonids and splittail," but virtually no tidal habitat restoration is proposed. Of course, tidal habitat is already extensive in the Western Delta, as virtually the entire area is tidal habitat. Primary productivity does not suffer from lack of tidal habitat. Poor productivity or primary production is a result of the radically altered hydrodynamics and low quality inputs created by excessive Delta exports.</p> <p>Habitat is more than mere acres; it also includes the quality of water and the nutrients necessary for primary production. Excessive Delta exports literally vacuum the critical LSZ pelagic habitat to the central and south Delta for export to southern California. This important habitat area needs more nutrients, longer residence times, more productive inputs from adjacent ROAs, and less export of its primary production to southern California. High inflows of unproductive reservoir water during the summer from the Sacramento River, coupled with negative flows in the lower San Joaquin River, draw critical habitat toward the South Delta export facilities. This reduces residence time and primary production and exports critical pelagic habitat. Summer temperatures frequently exceed levels lethal to delta smelt. Pelagic habitat remaining in the western Delta is largely comprised of unproductive reservoir water feeding the exports.</p>	<p>communities will be achieved (see 1.2.1 BDCP Alternatives). Please see Master Response 5 regarding BDCP Conservation Measures. Low Salinity zone habitats are not covered natural communities under the BDCP. For a discussion of Low Salinity Zone please see 11.1.2.2 Noncovered Aquatic Communities in the Final EIR/EIS.</p>
1610	159	<p>The new north Delta export facility in CM1 will exacerbate these hydrodynamic problems, as continuation of South Delta exports sustains them. By failing to enhance the pelagic habitat and plankton community of the West Delta ROA (Restoration Opportunity Area) by failing to manage and restore natural Delta hydrodynamics, CM3 cannot mitigate the adverse impacts of CM1.</p>	<p>Please see Master Response 5 regarding CM1 and comment response 1610-158. As part of the planning and environmental assessment process, the project proponents will incorporate environmental commitments (instead of Conservation Measures) and best management practices (BMPs) into the action alternatives to avoid or minimize potential adverse effects (a NEPA term) and potential significant impacts (a CEQA term). The project proponents will implement these environmental commitments as part of the project construction activities. In other words, these commitments will be satisfied even if not separately imposed by the permitting agencies. If permitting agencies impose additional measures or modifications, those will also be adhered to as part of the permit(s). The project proponents will coordinate planning, engineering, design and construction, operation, and maintenance phases of the alternative with the appropriate agencies (see 3B.2 Environmental Commitments). For a description on hydrodynamics for the action alternatives please see Chapter 8 Water Quality.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1610	160	<p>Open water or pelagic habitat is largely missing from the tidal habitat discussion in CM4, as it is in CM3. Open water habitat in the Delta is the key habitat of smelt and other pelagic fishes and clearly part of the Tidal Perennial Aquatic Habitat Community, but CM4 only focuses on 30,000 acres of emergent wetland restoration. Implementation of CM1 will likely adversely impact the time and space array of quality pelagic habitat in the Delta. In other words, it will likely decrease the amount of quality delta smelt habitat.</p>	<p>Alternative 4A includes Environmental Commitment 6 to restore tidal habitat and restore channel margin habitat. Alternative 4A involves greatly reduced habitat restoration relative to Alternative 4. Please see Master Response 5 regarding Conservation Measures and 11.1.5.5 Pelagic Organism Decline in the Final EIR/EIS for a discussion about the declines of pelagic species in the delta.</p>
1610	161	<p>Moyle et al (2012) [Footnote 75: <a href="http://www.ppic.org/main/publication.asp?i=1053">http://www.ppic.org/main/publication.asp?i=1053</a>] promote a "Reconciled Delta -- a coherent, robust, and dynamic portfolio of habitats and flows that support desired ecosystem functions and conditions". Despite a relatively negative prognosis for the future of the Delta, these authors state that "physical habitats and flows can be managed, where possible, to provide conditions that native estuarine species need at different stages in their lives.... In our vision for a reconciled Delta ecosystem, habitats in different parts of the Delta would be specialized to foster improved conditions for native fishes. All forms of habitat cannot be at all locations, so we propose a strategy in which different habitat types are available and connected to support each desirable species at the appropriate season, taking advantage of existing ecological differences among different regions of the Delta. Area specialization can provide the ecosystem diversity and variability that native fishes (and other organisms) need, while supporting continued human uses of Delta land and waters."</p> <p>These statements portray the basic problem with the BDCP, which is that it lacks specifics as to habitats, locations, and timing to meet the needs of the target native fishes in the Delta. Specifically the BDCP needs to show where the critical areas are in the Delta for salmon and smelt, the problems with these habitat areas, and what specifically can be done to improve habitats and fish populations. The complete lack of discussion of pelagic habitat and the low salinity zone of the Delta estuary is a perfect example of what is missing from the BDCP. It is almost like the BDCP sponsors forgot why they are doing a BDCP. If society plans to continue massive water supply exports from the Delta, how are we going to replace all the 6 million acre feet or so of pelagic habitat lost each year and keep native species that depend on that habitat from going extinct. CM1 fails to provide more outflow critical to the estuary, instead offering less in order to enhance water supply benefits. There is no doubt that with the new facilities and retention of the old ones, it would be relatively easy to completely decimate Delta pelagic habitats and the salmon and smelt populations, and that the weak adaptive management provisions to address uncertainties in operational effects are weak at best. Determining how the system should work after the infrastructure is built is recipe for further disaster. Parallel efforts to the BDCP to revise water quality standards and operations of the CVP also need be incorporated into the process to ensure success. Suggesting undertaking the BDCP under the present antiquated and inadequate regulatory systems will not lead to success.</p>	<p>Please see comment 1610-59 and 28. The commenter states that 6 million acre feet of habitat is going to be lost due to water supply exports, but this is not stated in the Final EIR/EIS.</p>
1610	162	<p>If there has been one thing learned over the past several decades in the Bay-Delta is that the regime shifts and population crashes occur in drier years. Yet we continue to advocate relaxing standards in dry years and focusing protections in wetter years. The smelt population has yet to recover from 1981. The striped bass have yet to recover from 1987-1992. We killed modest smelt recoveries in 01-02, 07-09, and 12-14. The focus is wrong. The BDCP will increase the problems in dry years because the plan retains large South Delta exports in dry years. We simply cannot condone removal of all high quality, low salinity zone, pelagic habitat as in 2013. A start toward recovery would be to plan to save what little habitat occurs in dry years when the low salinity zone pelagic habitat lies within</p>	<p>Please see comment 1610-59, 11, and 42.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		the West and Central Delta. CM1 is the measure that should deal with this issue. It is too important to wait until after the BCDP is implemented to address this issue.	
1610	163	"Outflow is thus the common denominator among the multitude of intertwined processes. In recognizing this, the Panel is unified in agreeing that the distribution, condition, or abundance of some estuarine organisms are statistically related to outflow and X2 because these two indicators reflect underlying physical and ecological processes that more directly affect the estuarine organisms. In statistical terminology, a number of important ecological factors "co-vary" with outflow and X2 and are more proximal influences on organism distribution, condition, and abundance. For example, some biotic indices may correlate with X2 because their distributions are driven by properties (for example salinity) that co-vary with X2, or because seasonal trends in X2 happen to coincide with inherent reproductive seasonality." (Workshop on Delta Outflows and Related Stressors Panel Summary Report, May 2014)	Commenter successfully quotes the Workshop on Delta Outflows and Related Stressors Panel Summary Report, 2014. For more information regarding changes in delta outflow under Alternative 4A please see Figures 5-37 through 5-39 and Tables 5-10 through 5-12 in Chapter 5. For more information and specific modeling results for all Alternatives, please refer to Chapter 5, Water Supply, and Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix.
1610	164	[ATT 2: Table of General Description of Proposed BDCP Conservation Measures.]	This comment describes an attachment to the comment letter; for further information please see Master Response 5 regarding BDCP Conservation Measures.
1610	165	<p>There is a fundamental flaw in the analysis regarding Water Quality (Chapter 8). Individual constituents were analyzed and discussed based on the potential for exceedance of Federal water quality criteria or State water quality objectives or if the constituent was on the State's Clean Water Act Section 303(d) list. A cornerstone of the State and Regional Water Board's regulatory authority is the Antidegradation Policy (Resolution 68-16) which is included in the Basin Plans as an appendix. However, the EIR fails to discuss or analyze constituents which will "degrade" water quality unless they pose a threat to exceed a water quality standard.</p> <p>Section 101(a) of the Clean Water Act (CWA), the basis for the antidegradation policy, states that the objective of the Act is to "restore and maintain the chemical, biological and physical integrity of the nation's waters." Section 303(d)(4) of the CWA carries this further, referring explicitly to the need for states to satisfy the antidegradation regulations at 40 CFR [Section] 131.12 before taking action to lower water quality. These regulations (40 CFR [Section] 131.12(a)) describe the federal antidegradation policy and dictate that states must adopt both a policy at least as stringent as the federal policy as well as implementing procedures.</p>	<p>Antidegradation analyses are the responsibility the State Water Resources Control Board and Regional Water Quality Control Boards as they make findings and decisions regarding water rights, changes in water quality objectives, and issue NPDES permits. Antidegradation analyses consider degradation relative to water quality criteria as well as socioeconomic impacts associated with not allowing the identified degradation to occur. The State or Regional Water Board, as appropriate, makes findings regarding the proposed regulatory action (e.g., new water quality objective or NPDES permit) weighing the identified degradation and socioeconomic impacts, relative to the benefit to the people of the state.</p> <p>The water quality assessment in the Draft EIR/EIS does make impact determinations relative to water quality degradation thresholds provided in Chapter 8, Section 8.3.2.3.</p>
1610	166	<p>California's antidegradation policy is composed of both the federal antidegradation policy and the State Board's Resolution 68-16 (State Water Resources Control Board, Water Quality Order 86-17, p. 20 (1986) ("Order 86-17"); Memorandum from Chief Counsel William Attwater, SWRCB to Regional Board Executive Officers, "federal Antidegradation Policy," pp. 2, 18 (Oct. 7, 1987) ("State Antidegradation Guidance")). As a state policy, with inclusion in the Water Quality Control Plan (Basin Plan), the antidegradation policy is binding on all of the Regional Boards (Water Quality Order 86-17, pp. 17-18).</p> <p>The Antidegradation Policy (Resolution 68-16) requires that:</p> <ul style="list-style-type: none"> <li>- Existing high quality water will be maintained until it has been demonstrated that any change will be with the maximum benefit to the people of the State.</li> <li>- The change will not unreasonably affect present and anticipated beneficial uses.</li> </ul>	See Response to Comment Letter 1610, Comment 165. Please see Master Response 14 regarding Water Quality.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>- The change will not result in water quality less than prescribed in the policies.</p> <p>Any activity which produces a waste or increased volume or concentration will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality with maximum benefit to the people of the state will be maintained.</p> <p>Implementation of the state's antidegradation policy is guided by the State Antidegradation Guidance, SWRCB Administrative Procedures Update 90-004, 2 July 1990 ("APU 90-004") and USEPA Region IX, "Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12" (3 June 1987) (" Region IX Guidance"), as well as Water Quality Order 86-17. The Regional Board must apply the antidegradation policy whenever it takes an action that will lower water quality (State Antidegradation Guidance, pp. 3, 5, 18, and Region IX Guidance, p. 1). Application of the policy does not depend on whether the action will actually impair beneficial uses (State Antidegradation Guidance, p. 6). The proposed project, as defined by the alternatives described in the EIR, will result in reduced flows and lower water quality in the Delta for some constituents.</p>	
1610	167	<p>The State Board's APU 90-004 specifies guidance to the Regional Boards for implementing the state and federal antidegradation policies and guidance. The guidance establishes a two-tiered process for addressing these policies and sets forth two levels of analysis: a simple analysis and a complete analysis. A simple analysis may be employed where a Regional Board determines that: 1) a reduction in water quality will be spatially localized or limited with respect to the waterbody, e.g. confined to the mixing zone; 2) a reduction in water quality is temporally limited; 3) a proposed action will produce minor effects which will not result in a significant reduction of water quality; and 4) a proposed activity has been approved in a General Plan and has been adequately subjected to the environmental and economic analysis required in an EIR. A complete antidegradation analysis is required if discharges would result in: 1) a substantial increase in mass emissions of a constituent; or 2) significant mortality, growth impairment, or reproductive impairment of resident species. Regional Boards are advised to apply stricter scrutiny to non-threshold constituents, i.e., carcinogens and other constituents that are deemed to present a risk of source magnitude at all non-zero concentrations. If a Regional Board cannot find that the above determinations can be reached, a complete analysis is required.</p> <p>Even a minimal antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; 7) an assessment of the significance of changes in ambient water quality and 8) whether the waterbody was a ONRW (Outstanding National Resource Water). A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses.</p>	See Response to Comment Letter 1610, Comment 165. Please see Chapter 8.2.1.3 Federal Antidegradation Policy in the Final EIR/EIS.
1610	168	The EIR, page 8-408 states in part that:	The water quality assessment in the RDEIR/SDEIS found that Alternatives 4A, 2D, and 5A would result in

DEIRS Ltr#	Cmt#	Comment	Response
		<p>"effects of the Alternative on Delta Hydrodynamics Under the No Action Alternative and Alternatives 1 - 9, the following two primary factors can substantially affect water quality within the Delta: Within the south, west, and interior Delta, a decrease in the percentage of Sacramento River sourced water and a concurrent increase in San Joaquin River-sourced water can increase the concentrations of numerous constituents (e.g., boron, bromide, chloride, electrical conductivity, nitrate, organic carbon, some pesticides, selenium). This source water replacement is caused by decreased exports of San Joaquin River water (due to increased Sacramento River water exports), or effects of climate change on timing of flows in the rivers. Changes in channel flows also can affect water residence time and many related physical, chemical, and biological variables. Particularly in the west Delta, sea water intrusion as a result of sea level rise or decreased Delta outflow can increase the concentration of salts (bromide, chloride) and levels of electrical conductivity. Conversely, increased Delta outflow (e.g., as a result of Fall X2 operations in wet and above normal water years) will decrease levels of these constituents, particularly in the west Delta."</p> <p>The selected Alternative #4 will reduce flows and result in lower water quality for several constituents (boron, bromide, chloride, electrical conductivity, nitrate, organic carbon, some pesticides and selenium). The Delta is currently impaired for many of the constituents that will increase under the proposed alternative.</p>	<p>less-than-significant impacts to water quality for all parameters assessed except for mercury and electrical conductivity (EC). Impacts to EC would be less than significant with implementation of the proposed mitigation. The impact conclusions are based on modeling results available at the time the RDEIR/SDEIS was prepared. Please refer to Master Response 14 (Water Quality) for additional information regarding water quality impacts from the proposed project alternative and for an explanation of how mercury was addressed during the water quality assessments.</p> <p>Also, Alternatives 4A, 2D and 5A would have less water quality effects in the western Delta related to EC, and would have fewer exceedances of the fish and wildlife EC objective between Prisoners Point and Jersey Point, such that it was feasible to introduce mitigation that would prevent significant impacts related to EC increases. After introduction of these mitigation measures, Alternatives 4A, 2D and 5A were determined to result in less than significant impacts for EC. Finally, Alternatives 4A, 2D, and 5A would not result in substantial degradation in the western Delta due to increased chloride concentrations, thus, the effects on chloride were determined to be less than significant. For more information regarding impacts to salinity please see Master Response 14.</p> <p>Regarding selenium, Section 2.2.2 of the RDEIR/SDEIS describes changes made relative to the Draft EIR/EIS, which have been carried forward into the Final EIR/EIS. The relevant portion of this section that addresses this issue reads:</p> <p>"Modeling for selenium (water concentrations and bioaccumulation modeling) was updated on the basis of a review and update of Delta source water concentrations of selenium. Public comments on the Draft EIR/EIS indicated that the source water concentrations for both the Sacramento River and San Joaquin River were likely biased high (i.e., the modeling approach used concentrations for both rivers that indicated more selenium than is currently actually present in the rivers). This bias was due to inclusion of older monitoring data that used higher detection limits (on both rivers), as well as to the decrease of selenium concentrations on the San Joaquin River that has occurred over time. The source water concentrations for the Sacramento River, San Joaquin River, Yolo Bypass, and San Francisco Bay were reevaluated and re-derived using the most recent data available, and the water concentration and bioaccumulation modeling was updated based on these updated source water concentrations. Results showed that there was generally a greater increase from Existing Conditions and No Action concentrations to the concentrations under the alternatives than previously predicted (i.e., the relative effect of the project was greater). However, the absolute values of all of the estimated concentrations for Existing Conditions, the No Action Alternative, and all Project Alternatives were lower than modeled previously in the Draft EIR/EIS, and thus were lower relative to thresholds of concern and water quality criteria used in the assessment." Please see Master Response 14 for additional information regarding selenium.</p> <p>It is unknown which pesticides and practices will be in use at upon implementation of the project alternatives, and data availability regarding current application rates will not resolve this unknown. Therefore, the assessment uses best available information and assesses conceptually the major mechanism of change that the project alternatives will affect and can be reasonably foreseen, which is changes in river flows and source water fractions in the Delta, and thus dilution. Hence, the pesticides assessment in Chapter 8 in Impacts WQ-21 and WQ-22 were performed qualitatively, based on quantitative changes in flow and source water fractions. Please see Master Response 14 for additional information on the qualitative pesticide assessment for the proposed project.</p> <p>For more information regarding CALISM II and DSM2 Modeling Results please see Appendix 5A of the FEIR/EIS.</p>
1610	169	The Antidegradation Policy requires however that: "The change will not unreasonably affect present and anticipated beneficial uses and the change will not result in water quality less	See Response to Comment Letter 1610, Comment 165.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>than prescribed in the policies." The proposed project will result in a substantial increase in mass emissions of constituents that already exceed water quality standards. This does not comply with the Policies set forth in the Basin Plan, exceeding a water quality standard does unreasonably affect present and anticipated beneficial uses. Impacts to the existing impaired water for unknown toxicity and specifically mortality, growth and reproduction of resident species has not been thoroughly discussed or analyzed for toxic constituents. A complete Antidegradation analysis must be conducted to determine incremental changes in constituent loading, both concentration and mass; an assessment of the significance of changes in ambient water quality; whether such degradation is consistent with the maximum benefit to the people of the state; whether the activity is necessary to accommodate important economic or social development in the area; and whether the resulting water quality is adequate to protect and maintain existing beneficial uses.</p>	
1610	170	<p>Aluminum is not considered in the EIR, Water Quality Section, as a constituent of concern. The Sacramento River maximum aluminum concentrations are over 8000 µg/L (Sacramento Regional Wastewater Treatment Plant NPDES (National Pollutant Discharge Elimination System) Permit, page F-43, Order No. R5-2010-0114-021). The US EPA water quality criteria for the protection of freshwater aquatic life are four-day average (chronic) and one-hour average (acute) for aluminum are 87 ug/l and 750 ug/l, respectively. The drinking water standard (maximum contaminant level (MCL)), both state and federal, for aluminum is 200 ug/l. The draft EIR (8-764, Trace Metals) is quite simply wrong in stating that the primary source of aluminum in the Delta is due to wastewater discharges. As is stated above the background concentration of aluminum in the Delta, above the Sacramento Regional WWTP, was almost 92 times higher than EPA's chronic criteria for aluminum and more than ten times above the acute criteria which is necessary to protect aquatic life. This measured concentration of aluminum in the Delta also exceeds the drinking water standard by 40 times. The failure to address aluminum in the Water Quality section of the EIR is inexcusable, the EIR incomplete and does not comply with CEQA and/or NEPA.</p> <p>The toxicity of hardness dependent metals was based on average (58 mg/l) and the 5th percentile hardness (39 mg/l, Sacramento River, appendix 8N6, table 11) rather than the lowest observed hardness (16 mg/l). Hardness dependent metals exhibit greater toxicity at lower harnesses. Ambient criteria for acute values are applicable to short periods of time, 1-hour average concentrations, and chronic values are defined as 4-day average concentrations.</p> <p>The data set for hardness, as reported in Appendix 8N6, table 11, was collected from 1986 through 2010 and consisted of 630 data points. The data set does not state the type of samples collected, grab or composite. It is assumed that the samples were grab samples as most constituents, such as volatiles, require grab samples. A grab sample would be fairly representative of a one hour time period as water quality is generally not shifting quality that quickly. There is also nothing to indicate that hardness changes in surface water rapidly and a grab sample may also be representative of a four day average. The rationale for using the average and 5th percentile data points rather than the simple worst case hardness is not presented. There is certainly no indication that a four day average would be properly represented by an average of data points collected over a 24 year period. The worst case conditions and the worst case potential for toxicity has not been evaluated for hardness dependent metals.</p>	<p>Aluminum was added to the screening analysis in Appendix 8C and into the trace metals assessment in Impact WQ-27 for the project alternatives, based on data availability and known presence in the ambient surface waters of the affected environment.</p> <p>Regarding the use of hardness for the trace metals assessment with hardness-dependent criteria, the commenter suggests that the lowest Sacramento River hardness should have been the basis for the criteria presented. The use of the lowest hardness would be inappropriate as this is an extreme, rare condition for the river that aquatic life would be exposed to. The 5th percentile represents a low hardness that has a reasonable frequency of occurrence, though still occurring rarely.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1610	171	Water Quality Criteria are stated as: The procedures described in U.S. Environmental Protection Agency's "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses" indicate that, except possibly where a locally important species is very sensitive, (freshwater or saltwater) aquatic organisms and their uses should not be affected unacceptably if the four-day average concentration of (name of material) does not exceed (the Criterion Continuous Concentration) µg/L more than once every three years on the average and if the one-hour average concentration does not exceed (the Criterion Maximum Concentration) µg/L more than once every three years on the average. The use of an average or 95th percentile hardness would potentially allow the criteria for hardness dependent metals to exceed the water quality criteria each time a hardness higher than the lowest recorded hardness is used to calculate the hardness. This in turn allows for exceedance of the criteria more than once in three years, the level EPA suggests would unacceptably affect aquatic life.	See Response to Comment Letter 1610, Comment 170. The data sets compiled for the setting and assessment were selected based on availability, scope of analyses addressed, locations addressed, and period of record. The setting is not deficient in its characterization of current water quality conditions, presenting a comprehensive description of existing conditions complete with citations to current literature and data summaries. Additional data would be just that and would not contribute to an appreciably altered characterization of existing conditions. The data that were compiled were of sufficient quantity and quality to characterize conditions for all constituents of concern to all beneficial uses that would be affected by the project alternatives throughout the study area and support the qualitative and quantitative assessments. Collection of additional field data is not part of the scope of the setting nor was it necessary given the extent of data that was available.
1610	172	The EIR identifies the beneficial uses impacted by pathogens as municipal and domestic supply, water contact recreation, shellfish harvesting, and commercial and sport fishing. Missing from this list is irrigated agriculture. Pathogens have not been evaluated for Agricultural Supply water. California Code of Regulations, Title 22, is mentioned in the EIR specifically with regard to pathogens and protecting Contact Recreational beneficial uses. However, Title 22 equally addresses agricultural irrigation and the acceptable levels of pathogens. From a regulatory point of view, Title 22 requirements are only directly applicable to reclaimed water, however the science used to determine a protective level for pathogens is directly applicable for protecting irrigated agriculture and recreational activities. The potential impacts to irrigated agriculture and the ingestion of food crops irrigated with water exceeding the recommended levels for pathogens presents at least the same level of concern as does recreational activities in that same water. The impacts to Irrigated Agriculture from pathogens, nitrates, constituents of emerging concern (CECs) and phthalates have not been assessed and the EIR is incomplete.	The list of beneficial uses identified as primarily being affected by pathogen levels is based on there being applicable pathogen-related water quality objectives to protect these specific uses (which are listed in Appendix 8A). There are no applicable pathogen-related water quality objectives for the protection of agricultural supply and, as noted by the commenter, Title 22 is for regulating the application of recycled wastewater on crops, not ambient surface waters. The issue of crops and water use is beyond the scope of the proposed project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation. With regards to beneficial use of water, please see Master Response 34.
1610	173	This Section of the EIR, page 8-80 states that: "Viruses also can be removed effectively through chlorine or ozone oxidation." This statement is incorrect; while chlorination may be effective at inactivating some limited viruses, it removes none. For the most part, viruses and protozoa have a moderate to high tolerance to chlorine. (CDC, Effect of Chlorination on Inactivating Selected Pathogens, 21 March 2012) It is also fairly well documented in Civil Engineering texts that virus and parasites are best removed by filtration and chlorination is generally accepted as ineffective. Going back to the requirements contained in CCR Title 22, filtration is required to remove pathogens, and one will note that disinfection with chlorine is not a requirement. Tertiary treatment, consisting of chemical coagulation, sedimentation, and filtration, has been found to remove approximately 99.5% of viruses. Filtration is an effective means of reducing viruses and parasites from the waste stream not disinfection with chlorine.	The referenced text has been modified in the Final EIR/EIS per the comment.
1610	174	The EIR is incorrect that pathogens experience rapid die off in the environment. The EIR states that most pathogens die off quickly in the natural environment. However, the latest science shows that pathogens can survive for lengthy time periods and the indicator tests used to identify pathogens may not be reliable. Previous research had raised questions about whether E. coli O157:H7 outlasts indicator bacteria in the environment. So Michael Jenkins and his colleagues at the U.S. Department of Agriculture's Agricultural Research Service decided to test the reliability of the Environmental Protection Agency's method by measuring the survival rates of E. coli O157:H7 and four species of indicator bacteria. In one	This statement is based on discussion in Chapter 8, Impact WQ-19 in Chapter 8 has been modified to clarify, "There may be natural/artificial barriers/processes that limit Cryptosporidium transport to water. Significant die off of those that reach the water may contribute to the low frequency of detection."

DEIRS Ltr#	Cmt#	Comment	Response
		<p>experiment, they injected the E. coli strain and the indicator bacteria into small, porous chambers and then suspended the chambers in test ponds in northeast Georgia. By varying the chambers' depth in the water, the scientists could monitor the microbe's survival rate under different levels of solar radiation. In another experiment, they placed inoculated pond water in bottles in an outdoor laboratory. The researchers then measured bacteria levels at regular intervals. Both experiments exposed the bacteria to predation by other microorganisms -- a common fate of microbes in the environment.</p> <p>They found that in both experiments, the indicator bacteria died off significantly more quickly than E. coli O157:H7 did. For example, in the outdoor lab experiments, most cells of fecal Enterococcus -- an indicator species -- died in less than five days. But it took between seven and 18 days for most of the E. coli O157:H7 to die. The virulent strain appeared to be more resistant than indicator bacteria to solar radiation and to predation by other microorganisms. The findings suggest that the dangerous E. coli could be present in water even when tests for fecal indicator bacteria are negative, Jenkins says. "We need to develop methods that are going to be able to quantify the pathogens themselves," he says. (Chemical &amp; Engineering News, ISSN 0009-2347)</p> <p>"In general, many different kinds of viruses can persist in and on environmental media, including liquid and solid media and in the airborne state, with half-lives of hours, days, weeks or even months. The extent of persistence depends on the type of virus, its physical state (dispersed, aggregated, cell-associated, membrane-bound, adsorb to other solids, etc.), the medium in which it is present (faeces, respiratory secretions, tissues, other liquids or solids, air, etc. and prevailing environmental conditions that influence virus survival. The environmental conditions influencing virus survival generally include: temperature; pH and other physical and chemical properties of the medium in which the viruses are present, such as moisture content, organic matter, particulates, salt concentration, protective ions, and antiviral chemicals such as proteolytic enzymes; antiviral microbial activity, and light. On environmental surfaces and in aerosols additional environmental factors also influence virus survival, such as relative humidity and physico-chemical forces at air-water and air-water-solid interfaces." (WHO Virus Survival Report, Virus Survival in the Environment with Special Attention to Survival in Sewage Droplets and Other Environmental Media of Fecal or Respiratory Origin, August 21, 2003)</p> <p>"Three enteroviruses -- polioviruses, echoviruses and coxsackieviruses -- were used to contaminate soil and vegetables; their survival times, under various storage conditions, were then recorded (2). The concentration of the viruses employed varied from 1 x 10<sup>4</sup>-5 to 1 x 10<sup>5</sup>-5 CCID<sub>50</sub>/ml. Depending on soil type, moisture content, pH and temperature, the viruses survived for 150 to 170 days in soil. When added to uncooked vegetables and stored under household conditions, the viruses survived for as long as 15 days." (Rev. sci. tech. Off. int. Epiz., 1991, 10 (3), 733-748, Virus survival in the environment)</p>	
1610	175	<p>Recreational Waters Criteria and Beach Closures:</p> <p>In most areas of California, the current water quality criterion for bacteria in recreational waters is based on fecal coliform organisms:</p> <p>* In waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of</p>	<p>This comment raises a number of issues not attributable to, and thus not affected by, the project alternatives (e.g., sanitary sewer overflows, improper disposal of waste in Delta waters). The assessment of pathogens (Impact WQ-19 and WQ-20) was conducted using qualitative methods, relying on current knowledge of sources and factors affecting pathogen levels in source and Delta waters. The non-conservative nature and data availability warranted the qualitative approach and preclude generating the quantitative information sought in the comment regarding exceedances of bacteria objectives.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>samples taken during any 30-day period exceed 400/100 ml.</p> <p>U.S. Environmental Protection Agency's evaluation of the bacteriological data indicated that using the fecal coliform indicator group at the maximum geometric mean of 200/100 ml would cause an estimated 8 illnesses per 1,000 swimmers at marine beaches (Ambient Water Quality Criteria for Bacteria -- 1986). US EPA now recommends the addition of criteria for E. coli (126/100 ml) and enterococci (33/100 ml) based on the same "acceptable" illness rate of 8 illnesses per 1,000 swimmers at marine beaches.</p> <p>Even at the "acceptable" illness rate of 8 out of every 1,000 swimmers; the National Resources Defense Council (NRDC) in 2008 issued a press release interpreting EPA's data that beach closures were at their highest level in 18 years. In 2002, the Centers for Disease Control and Prevention (CDC) concluded that the incidence of waterborne infections from recreational water use has steadily increased over the last several decades. Despite the beach closures and the increase in reported sewage-related illnesses, in a healthy population, most of the illnesses resulting from exposure to inadequately treated sewage are relatively minor (respiratory illness; ear, nose, or throat irritation; and especially gastroenteritis) and go unreported. Even if such illnesses are reported to doctors, there is seldom an attempt to find or track an environmental source. Another complicating issue is inadequate data on the occurrence of sewer spills or overflows. The State Water Board has only begun requiring reporting of sewer spills into its new sanitary sewer overflow (SSO) database and reporting compliance rates are mixed. The lack of data regarding sewer spills and the under-reporting of illnesses makes it difficult to definitively estimate the incidence of diseases caused by exposure to sewage-contaminated waters. It can likely be conceded that the number of reported cases is a small subset of the actual number of illnesses caused by sewage exposure or waterborne pathogens. The discussion of beach closures has been largely limited to ocean waters; inland waters are rarely closed for recreational uses despite large numbers of documented sewer spills. The EIR fails to identify how many exceedances of the bacteria standard were recorded during the period analyzed. The EIR also fails to estimate the number of illnesses are typically occurring and are projected to occur during the study period. The EIR should also discuss beach closures within the Delta during periods when the standard is exceeded.</p>	
1610	176	<p>Beneficial Uses of the Receiving Water:</p> <p>By memorandum, dated September 28th 2000, Jeff Stone, California Department of Health Services (DHS), Office of Drinking Water, Recycled Water Unit, to Regional and District Engineers wrote that: "Federal Standards for water quality where recreational bathing may occur were developed for freshwaters which are not directly influenced by sewage discharges (treated or untreated)." The memorandum goes on to state that the Department does not believe that the federal criteria are protective if the source of water is domestic wastewater and cites the "Uniform Guidelines" prepared by the Department.</p>	See Response to Comment Letter 1610, Comment 175 for further response regarding approach to pathogens assessment.
1610	177	<p>Irrigated Agriculture:</p> <p>Although the discussion of pathogens has largely been limited to recreational uses, Irrigated Agriculture is a designated beneficial use of most inland waters. Outbreaks of bacteria-contaminated food have made headlines over the past few years. California Department of Public Health, Regulations, CCR Title 22, Section 60303, require that for the irrigation of Food Crops, including edible root crops, reclaimed water be tertiary treated water disinfected to 2.2 MPN/100 ml (total coliform organisms). Obviously, 2.2 MPN total</p>	See Response to Comment Letter 1610, Comment 172.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>coliform is significantly less than the 200 MPN fecal coliform bacteria criteria established for recreational waters. Undiluted surface water can be and is used to irrigate food crops. The science used to develop the bacteria limitation in the Title 22 Reclamation Criteria for the irrigation of food crops is applicable to surface waters even though the Title 22 regulatory requirements do not apply. By Memorandum to Regional Water Boards, dated August 18, 1992, the then Department of Health Services, Office of Drinking Water, issued the Uniform Guidelines for the Disinfection of Wastewater (Uniform Guidelines). The Uniform Guidelines recommend that for agricultural uses where there is less than a twenty-to-one dilution of wastewater within the receiving stream, that a tertiary level of treatment be required with a 2.2 MPN/100 ml limitation for total coliform organisms. A footnote for this situation states that where there is no dilution, the water reclamation criteria shall apply. The Uniform Guidelines further recommend that: when there is dilution available in the receiving stream of at least 20-to-1 the wastewater be treated to a secondary level and disinfected to a 23 MPN/100 ml; and when there is dilution available of at least 100-to-1 the wastewater be treated to a secondary level and disinfected to a 240 MPN/100 ml.</p>	
1610	178	<p>Municipal (Drinking) and Domestic:</p> <p>The Uniform Guidelines recommend that for drinking water uses where there is less than a twenty to one dilution of wastewater within the receiving stream, that no domestic wastewater discharges be allowed. Tertiary treated, 2.2 MPN/100 ml (total coliform organisms), wastewater could only be allowed to a receiving stream with a drinking water beneficial use if greater than a twenty-to-one dilution reliably exists.</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please see comment 1610-175 for additional information.</p>
1610	179	<p>Contact Recreation:</p> <p>The Uniform Guidelines and the Reclamation Criteria of CCR Title 22 require that for unrestricted recreational uses that wastewater be tertiary treated and disinfected to 2.2 MPN/100 ml (total coliform organisms), unless a 20 to 1 in stream dilution exists then the wastewater may be secondary treated and disinfected to 23 MPN/100 ml. This recommendation for contact recreational uses is directly comparable to the US Environmental Protection Agency recommended bacteria criteria.</p>	<p>Title 22 regulates recycled wastewater use, and is not applicable as receiving water quality criteria.</p>
1610	180	<p>Domestic Wastewater Treatment:</p> <p>As stated above, the California Department of Public Health, formerly the Department of Health Services, does not support the Federal Criteria as being protective if the source of water in the receiving stream is domestic wastewater (treated or untreated). Domestic wastewater discharges are regulated under Federal NPDES (National Pollutant Discharge Elimination System) permits issued by the State and Regional Boards. The federal Clean Water Act, Section 101(a)(2), states: "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983." Federal Regulations, developed to implement the requirements of the Clean Water Act, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 CFR Sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shell fish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation.</p>	<p>Please see chapter 8.1.3.11 Organic Carbon in the Final EIR/EIS for a discussion about municipal water.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1610	181	The California Department of Health Services has developed reclamation criteria, California Code of Regulations, Title 22, Division 4, Chapter 3 (Title 22), for the reuse of wastewater. Title 22 requires that for spray irrigation of food crops, parks, playgrounds, schoolyards, and other areas of similar public access, wastewater be adequately disinfected, oxidized, coagulated, clarified, and filtered, and that the effluent total coliform levels not exceed 2.2 MPN/100 ml as a 7-day median. Title 22 also requires that recycled water used as a source of water supply for nonrestricted recreational impoundments be disinfected tertiary recycled water that has been subjected to conventional treatment. A nonrestricted recreational impoundment is defined as "...an impoundment of recycled water, in which no limitations are imposed on body-contact water recreational activities." Title 22 is not directly applicable to surface waters; however, it is appropriate to apply an equivalent level of treatment to that required by DHS's reclamation criteria if receiving waters are used for irrigation of food crops and for contact recreation. The stringent treatment and disinfection criteria of Title 22 are appropriate since undiluted effluent may be used for the irrigation of food crops and/or for body-contact water recreation. Coliform organisms are intended as an indicator of the effectiveness of the entire treatment train and the effectiveness of removing other pathogens.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. For more information regarding the proposed project and water quality, please refer to Chapter 8 in the Final EIR/EIS and for agricultural impacts please review the Master Response.
1610	182	Additive toxicity:  Acute and chronic toxicity tests were conducted to determine the effects of metals combined as mixtures at proposed water quality criteria concentrations and at multiples of the LC50 and obtained from tests on six metals with three aquatic species. Arsenic, cadmium, chromium, copper, mercury and lead caused nearly 100% mortality rainbow trout and daphnids ( <i>C dubia</i> ) during acute exposure. These results point out the need for additional studies to determine the type and degree of interaction of toxicants because single chemical water quality criteria may not sufficiently protect some species when other toxicants are present concurrently. (U.S. Environmental Protection Agency publication 600/3-85/074) The Central Valley Basin Plan, Implementation, Policy for Application of Water Quality Objectives requires that: "Where multiple toxic pollutants exist together in water, the potential for toxicologic interactions exists. On a case-by-case basis, the Regional Water Board will evaluate available receiving water and effluent data to determine whether there is a reasonable potential for interactive toxicity. Pollutants which are carcinogens or which manifest their toxic effects on the same organ systems or through similar mechanisms will generally be considered to have potentially additive toxicity." The EIR documents that the Delta is listed as impaired for unknown toxicity. It is reasonable to assume that additive effects of the many listed constituents could be at least contributing to toxicity within the Delta. The EIR is incomplete without an assessment of additive toxicity.	The water quality assessment relies on applicable federal and state water quality criteria for metals, as this represents the best available information for which to compare changes in metals concentrations due to the project and assess potential effects of projected changes to beneficial uses, as described in Chapter 8, Water Quality, Section 8.3.1, Methods for Analysis. For constituents with no applicable water quality criteria (e.g., dissolved organic carbon, bromide, selenium), other relevant thresholds recognized by the scientific community (e.g., USEPA, state regulatory agencies) were applied. There is no basis on which to assume that unknown toxicity cited in the comment is attributable to trace metals, particularly when metals concentrations typically do not exceed water quality criteria in the Delta.
1610	183	Section 8.2.2.1 Water Quality Monitoring Programs and Sources of Data list the sources of data used to assess the existing water quality in the study area. Absent are Wastewater Dischargers (NPDES permit holders) and agricultural Dischargers to surface waters which are required to sample their wastewater effluent as well as the receiving stream. These Dischargers are also required to conduct sampling for priority pollutants. This data would have been critical in assessing the conditions throughout the Delta and beyond. It is likely that use of the WWTP (wastewater treatment plant) data set would have greatly expanded the list of constituents of concern. It seems reasonable that as additional water is removed from the Delta the remaining water would have a larger component of domestic wastewater from direct discharges making the quality of this source water of greater	Please refer to Master Response 14 regarding scope of data necessary for characterization of Delta water quality setting. Please see Master Response 15, NPDES permit holders. Pursuant to the requirements of the Construction General Permit for Construction and Land Disturbance Activities (Construction General Permit [CGP]) (currently Order 2010-0014-DWQ) and the National Pollutant Discharge Elimination System (NPDES [pursuant to Section 402 of the Clean Water Act]) permit, Lead Agencies will prepare multiple Stormwater Pollution Prevention Plans (SWPPPs) in advance of construction. A series of separate but related SWPPPs will be prepared and implemented and will take into consideration site-specific conditions (e.g., site sediment and receiving water risk) and site-specific construction activities. Accidental spill prevention and response measures are required to be included in a SWPPP and specific measures will vary according to project site. Measures specific to site and construction activity will be developed during the development of the SWPPPs for the project. The commenter is referred to Appendix 3B, Environmental Commitments, Section 3B.1.5 for

DEIRS Ltr#	Cmt#	Comment	Response
		importance.	the types of best management practices that are required to be implemented as part of an SWPPP.
1610	184	<p>Salinity and electrical conductivity (EC):</p> <p>Section 8.2.3.7 Salinity and Electrical Conductivity, beginning on page 8-52 states that: "Concern about salinity involves three main issues: drinking water, crop irrigation, and biota/habitat... In addition, industrial processes that require low-salinity water can be negatively affected. Salt removal during the water purification process (for either drinking or process water) is presently very expensive." "When salinity concentrations in irrigation water are too high, yields for salt-sensitive crops may be reduced." (Page 8-53)</p> <p>"Incorporated into the BDCP, as set forth in EIR/EIS Appendix 3B, Environmental Commitments, a separate, non-environmental commitment to address the potential increased water treatment costs that could result from EC concentration effects on municipal, industrial and agricultural water purveyor operations."</p> <p>Agricultural crop yields reductions will occur as salinity in the irrigation water increases, not just for salt sensitive crops but even for more tolerant plant species. (Irrigation with Reclaimed Municipal Wastewater, a Guidance Manual, SWRCG Report No. 84-1 wr, Chapter 3 and Table 3-1) The anticipated reduction in crop yields as EC levels increase is not presented. A methodology for determining crop yield reductions is not presented. The proposed commitment to address "increased water treatment costs" does not address crop yield reductions and the associated lower profits earned since it is unlikely that irrigation water would be treated.</p>	Please refer to Chapter 14 (Agricultural Resources) for a discussion on potential effects to agriculture as a result of changes in salinity under the project alternatives; the lead agencies have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18, Agricultural Impact Mitigation.
1610	185	Industrial uses of water can be the most limiting water quality objectives for salinity as shown in Water Quality Criteria (McKee and Wolf, SWRCB 1963) Chapter 5. It is currently not uncommon for industries to use reverse osmosis (RO) system to remove salts prior to use in cooling towers and boiler systems. The EIR should document how many systems are in place for industrial uses to account for elevated salt levels within the use area. How many additional salt treatment and removal system will need to be installed to account for the increased EC (electrical conductivity) levels projected by some of the EIR alternatives? The existing and future costs associated with the EIR alternatives have not been accounted for.	Please refer to Chapter 8 in the FEIR/EIS for updated water quality analyzes since publication of the Draft EIR/EIS. Under the preferred alternative, 4A, Mitigation Measure WQ-11 would reduce potential impacts related to increases in electrical conductivity to a less-than-significant and not adverse level. Please see Master Response 4 for discussion of the scope of the proposed project and alternatives (such as desalination) that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project. However, nothing in the proposed project would prevent other entities from pursuing innovative approaches to desalination or other water supply solutions. As described in Appendix 3A, Section 3A.7, Results of Initial Screening of Conveyance Alternatives, EIR/EIS (2013), desalination was included as part of Alternative B7. Issues related to desalination include land use impacts, costs, and substantial energy use requirements. Advances in technology have improved feasibility of desalination and as a statewide water use planning component; it will be evaluated by water agencies on a local/regional level.
1610	186	<p>"The Region 5 Basin Plan specifies EC objectives for the Sacramento River, Feather River, and San Joaquin River; it also contains EC objectives for the Delta, which have been superseded by the 2006 Bay-Delta WQCP... impairment by elevated EC levels, as follows: (a) southern, northwestern, and western channels in the Delta; (b) Delta export area; (c) Grasslands drainage area, Mud Slough, and Salt Slough in the San Joaquin River valley; (d) San Joaquin River from Bear Creek to Delta boundary; and (e) Suisun Marsh (State Water Resources Control Board 2011)." (Page 8-55)</p> <p>The Delta currently exceeds the water quality standard for EC. Several of the options contained in the EIR will lead to worsening of this condition. However, the EIR simply states that we will look at it later and we will throw lots of money at it. There is no assessment of the current crop yield losses or those expected to occur due to implementation of the various options. There is no assessment of the current impacts to industry or those that may be anticipated by increased salinity. There is no quantification of the actual costs to</p>	Please refer to Chapter 14 (Agricultural Resources) for a discussion on potential effects to agriculture as a result of changes in salinity under the project alternatives. Also, see Chapter 8 for a discussion on potential exceedances of water quality objectives for municipal and industrial beneficial uses. Under the preferred alternative, 4A, Mitigation Measure WQ-11 would reduce potential impacts related to increases in electrical conductivity to a less-than-significant and not adverse level.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>agriculture, industry, local communities or individuals that may occur due to increasing salinity levels. It's easy to say there will be a commitment to offset the costs when those costs have not been assessed and a mechanism to reclaim those costs has not been developed, however this should be analyzed as a part of the EIR.</p>	
1610	187	<p>Color:</p> <p>CCR Title 22, Chapter 15, Article 16, Secondary Water Standards, Section 64449, states, in part, that: "The secondary MCLs shown in Tables 64449-A and 64449-B shall not exceed in the water supplied to the public by community water systems." Table 64449-A contains a MCL (maximum containment level) for color of 15 units.</p> <p>Drinking water MCLs are included in the Central Valley Basin Plan by direct reference under the Chemical Constituents Objective, therefore the MCLs are applicable water quality standards.</p> <p>The EIR (Section 8C.1.5.2) incorrectly states that: "Color in water has a secondary MCL of 15 color units. Secondary MCLs are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations." In California the secondary MCL for color is a regulatory requirement and an applicable water quality standard.</p> <p>The EIR (Section 8C.1.5.2) continues: "To the degree that color itself is a concern from an aesthetic standpoint, conventional drinking water treatment removes many of the constituents that cause high color levels in water. Coagulation/flocculation and filtration remove metals like iron, manganese and zinc. Aeration removes iron and manganese. Granular activated carbon removes most of the contaminants which cause color (U.S. EPA 2012b). Color in the three major source waters to the Delta does not vary considerably (see Step 1, Table SA-6). The average in the Sacramento River at Freeport/Greene's Landing is approximately 22 units, while San Francisco Bay at Martinez and San Joaquin River at Vernalis average approximately 30 units. The standard deviations at these locations are 22 - 37 units, indicating that substantial variability exists at all three locations, and no specific source waters is consistently highest in color. The Delta is not 303(d) listed for color and thus no beneficial use impairment due to its current levels is occurring."</p> <p>The total portions of iron, manganese and zinc may be removed by coagulation, flocculation and filtration, however the dissolved segment will likely pass through such treatment systems. The EIR does not present any information regarding the total and/or dissolved speciation of these metals. It makes no engineering sense that aeration would remove iron and manganese from a water column. Aeration is a process where air is added to a treatment process; this may result in volatile constituents to be removed to the atmosphere but not metals.</p> <p>The EIR clearly shows that color exceeds the water quality standard throughout the Delta where the average levels of 22 units and 30 units clearly exceed the 15 unit standard. The fact that the 303(d) list has not been modified to include color does not indicate that the water quality standard is not being exceeded.</p>	<p>See Response to Comment Letter 1610, Comment 189.</p>
1610	188	<p>The State Water Resources Control Board's Policy, Resolution No. 88-63, "Sources of Drinking Water" states that All surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards..." Drinking water quality must be maintained within the</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		waters of the State not just following extraction and treatment.	
1610	189	<p>The drinking water beneficial use is impaired by color within the Delta; the EIR clearly documents this case by showing average color levels which exceed the drinking water MCL (maximum containment level). The EIR is not only deficient with regard to the discussion of color, but it is misleading and simply incorrect.</p> <p>Page 8C-19 states, in part, the following with regard to pH: "Because pH is a fundamental property of water, it affects the chemistry of numerous other constituents within the water, and thus, in addition to having potential direct effects on beneficial uses (such as municipal and domestic water supply and aquatic organisms), can also affect beneficial uses indirectly by altering the chemistry and toxicity of other constituents in the water.</p> <p>Within the affected environment, pH is typically between 6.5 and 8.5. The pH within the affected environment is controlled primarily by natural factors, such as alkalinity from natural weathering of minerals and carbon dioxide concentrations controlled by algae and bacterial respiration. Figure 8C-1 shows exceedance probabilities of historical pH data from 1975 to 2009 in the Sacramento River at Freeport/Greene's Landing, the San Joaquin River at Vernalis, and San Francisco Bay at Martinez. The data indicate that the Sacramento River and San Francisco Bay are within the Basin Plan objective range of 6.5 to 8.5 &gt;95% of the time, while the San Joaquin River is between the limits &gt;90% of the time. As water moves from these locations to areas within the Delta, pH changes as a result of natural factors, and therefore the pH at any given location within the Delta may have no correlation to the source waters that contribute water to that location. Given this, and given that the alternatives do not include components that would directly depress or elevate pH, it is not expected that pH would change substantially upstream of the Delta, within the Delta, or in the SWP and CVP Service Area under the alternatives, relative to Existing Conditions and (for Alternatives 1A - 9) the No Action Alternative. Any negligible changes in pH that may occur in the water bodies of the affected environment would not be of frequency, magnitude and geographic extent that would adversely affect any beneficial uses or substantially degrade the quality of these water bodies, with regards to pH."</p> <p>For drinking water pH levels are important due to corrosive effects and adverse impacts to water treatment processes. For aquatic life, the pH range from 6.5 to 9 is considered nontoxic, however the toxicity of many constituents can be affected by changes in pH. pH levels outside the 6.5 to 9.0 range fish suffer adverse physiological effects increasing in severity until lethal levels are reached. The degree of dissociation of weak acids or bases is affected by changes in pH, which is important since the toxicity of several compounds is affected by the degree of dissociation. EPA criteria recommends that rapid pH fluctuations should be avoided. The Central Valley Basin Plan water quality objective for pH limits shifts to no more than 0.5 pH units outside the 6.5 to 8.5 range.</p>	<p>Color is not identified as an impairment in the Delta on the State's Clean Water Act Section 303(d) list. Further, the MCL identified in the comment is applicable to drinking water. Thus, the characterization of color in Appendix 8C, Screening Analysis, is correct and appropriate for the EIR/EIS.</p> <p>The comment about pH effects outside the range of 6.5 to 9.0 is acknowledged; however, the assessment does not expect pH in the affected environment to be outside of this range at a frequency that would be of concern to aquatic life. Also, the statement in the comment that the Central Valley Basin Plan water quality objective limits changes to pH to no more than 0.5 pH units is incorrect; the Central Valley Water Board adopted a Basin Plan amendment, which became effective July 7, 2009, in recognition that allowing pH changes within the range of 6.5 to 8.5 would continue to be protective of beneficial uses.</p>
1610	190	<p>The final page of Appendix 8H is Figure 8C-1, the Probability of Exceedance for pH. This shows that waters Sacramento River and San Francisco Bay are below the 6.5 objective 5% of the time and the San Joaquin River is below the pH objective 10% of the time. The EIR speaks as if this is a good record of compliance, it is not when one considers the potentially toxic impacts to aquatic life. Recall from above that Environmental Protection Agency Water Quality Criteria are stated as: The procedures described in US EPA's "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses" indicate that, except possibly where a locally important species is very sensitive,</p>	<p>As noted by the commenter, the concept of 1-hr and 4-day average concentrations does not apply to pH, as it is not a mass-based constituent. The focus of the pH assessment is on changes in pH due to the alternatives, not whether the current pH conditions are a good record of compliance compared to Basin Plan objectives. As discussed in Appendix 8C, Section 8C.1.5.7, pH, pH of Delta source water and the Delta itself is affected primarily by natural factors, which include geology of the source watersheds and biological activity in the waters. Also, the pH ranges of the source waters are similar. Thus, the changes in source water fractions of concern to the commenter are not expected to cause substantial changes in pH relative to existing conditions, as discussed fully in Appendix 8C.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(freshwater or saltwater) aquatic organisms and their uses should not be affected unacceptably if the four-day average concentration of (name of material) does not exceed (the Criterion Continuous Concentration) µg/L more than once every three years on the average and if the one-hour average concentration does not exceed (the Criterion Maximum Concentration) µg/L more than once every three years on the average. While pH is not measured as a concentration, surely exceeding the objective 5 or 10% of the time is not an acceptable compliance record.</p> <p>The EIR states that "natural factors" will alter pH levels and any changes in pH would not be of frequency, magnitude and geographic extent that would adversely affect any beneficial uses or substantially degrade the quality of these water bodies. However, there is no information in the EIR supporting this claim. To the contrary, any exceedance of a water quality objective should be considered as serious. As water is withdrawn from the Delta, water from the San Joaquin River would have a greater impact on the Delta waters under several of the EIR alternatives, this would lead to an increase in overall pH violations of the water quality objective for pH. The EIR also does not discuss pH shifts which have the potential to increase toxicity and violate the Basin Plan objective for pH. The EIR should address the conditions as lower pH waters move out of the San Joaquin River and whether shifts in pH occur.</p> <p>The Basin Plan contains a narrative Toxicity objective that prohibits: "Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life."</p>	<p>Finally, the definition of the narrative toxicity objective is noted. However, because the Basin Plan has a specific objective for pH (6.5–8.5), the narrative objective does not apply to the discussion in the EIR/EIS regarding pH.</p>
1610	191	<p>Threatened violation:</p> <p>The increasing production and use of pharmaceuticals and personal care products (PPCPs) -- some of which may be endocrine disrupting compounds (EDCs) -- have led to a growing concern about the occurrence of these compounds in the environment. Recent studies have reported the occurrence worldwide of EDCs, PPCPs, and other organic wastewater contaminants (OWCs) -- collectively referred to as "constituents of emerging concern" (CECs) or "emerging constituents" (ECs) -- in wastewater treatment plant (WWTP) effluents, surface waters used as drinking water supplies, and in some cases, finished drinking waters. Of the 126 samples analyzed for the project, one sample (American River at Fairbairn drinking water treatment plant [DWTP] intake collected in April 2008) had no detectable levels of any EDCs, PPCPs, or OWCs. All other samples had one or more analytes detected at or above the corresponding MRLs (Maximum Residue Limits). The five most frequently detected PPCPs were caffeine, carbamazepine, primidone, sulfamethoxazole, and tri(2-chloroethyl) phosphate (TCEP). At the sample sites upstream of WWTP discharges in all three watersheds, the concentrations of selected PPCPs, except for caffeine, were low (i.e., ≤ 13 ng/L), pointing to WWTP discharges as the main source of most PPCPs and OWCs in the environment. (Source, Fate, and Transport of Endocrine disruptors, Pharmaceuticals, and Personal Care Products in Drinking Water Sources in California, National Water Research Institute Fountain Valley, California, May 2010)</p> <p>Over the last 10 years, reports of feminized wildlife have fueled chilling headlines. Most of these reports have focused on the many ways that estrogen in sewage effluent can distort normal male development. Now a new study reveals one way that the hormone pollutant can affect females: Too much estrogen causes subtle changes in female fish's courting behavior, which could alter a population's genetic makeup (Environ. Sci. Technol., DOI:</p>	<p>PPCPs have been addressed in the EIR/EIS in Section 8.1.3.8, 8.1.1.8, and in Appendix 8C, Screening Analysis.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>10.1021/es101185b).</p> <p>Increase in intersex fish downstream from WWTP possibly associated with endocrine-active contaminants. (Boulder Colorado, Colorado University, 2008) Skewed sex ratio downstream from WWTP possibly associated with endocrine-active contaminants. (Boulder Colorado, Colorado University, 2006) Fluoxetine (FLX), Sertraline (SER) and their degradates NFLX, and NSER were the primary antidepressants in brain tissue samples. Little or no venlafaxine (VEN), the dominant antidepressant in both water and bed sediment, was present. Degradates were measured at higher concentrations in brain samples than parent compounds. (Boulder Creek, Colorado &amp; Fourmile Creek, Iowa, the College of Wooster, 2010) SAR sites (with WWTP or urban runoff influent) males had significantly lower Testosterone (T) than the reference site males. Males from SAR sites had significantly higher 17β-estradiol (E2) than reference site. Females from SAR sites had significantly lower E2 than the reference site females. (USGS, Santa Ana River (SAR) SAR sites, 2009).</p> <p>"Several recent studies have documented endocrine disruption in Delta fish. One of the biomarkers of EDCs is intersex fish, fish with both male and female reproductive organs. A recent histopathological evaluation of delta smelt for the Pelagic Organism Decline found 9 of 144 maturing delta smelt (6%) collected in the fall were intersex males. This study provides evidence that delta smelt are being exposed to EDCs. Brander and Cherr (2008) observed choriogenin induction in male silversides from Suisun Marsh. Riordan and Adam (2008) reported endocrine disruption in male fathead minnows following in-situ exposures below the Sacramento Regional Treatment Plant. Lavado, et al. (in press) conducted studies in 2006 and 2007 to evaluate the occurrence and potential sources of EDCs in Central Valley waterways. In their study, estrogenic activity was repeatedly observed at 6 of 16 locations in the Bay-Delta watershed, including in water from the Lower Napa River and Lower Sacramento River in the Delta. Further studies are needed to identify the compounds responsible for the observed estrogenic activity and their sources." (Alameda County Water District, Alameda County Flood Control and Water Conservation District, Zone 7, Metropolitan Water District of Southern California, San Luis &amp; Delta-Mendota Water Authority, Santa Clara Valley Water District, State Water Contractors, June 1, 2010)</p>	
1610	192	<p>A recent study by the Toxic Substances Hydrology Program of the U.S. Geological Survey (USGS) shows that a broad range of chemicals found in residential, industrial, and agricultural wastewaters commonly occurs in mixtures at low concentrations downstream from areas of intense urbanization and animal production. The chemicals include human and veterinary drugs (including antibiotics), natural and synthetic hormones, detergent metabolites, plasticizers, insecticides, and fire retardants. One or more of these chemicals were found in 80 percent of the streams sampled. Half of the streams contained 7 or more of these chemicals, and about one-third of the streams contained 10 or more of these chemicals. This study is the first national-scale examination of these organic wastewater contaminants in streams and supports the USGS mission to assess the quantity and quality of the Nation's water resources. A more complete analysis of these and other emerging water-quality issues is ongoing. Knowledge of the potential human and environmental health effects of these 95 chemicals is highly varied; drinking-water standards or other human or ecological health criteria have been established for 14. Measured concentrations rarely exceeded any of the standards or criteria. Thirty-three are known or suspected to be hormonally active; 46 are pharmaceutically active. Little is known about the potential health effects to humans or aquatic organisms exposed to the low levels of most of these chemicals or the mixtures commonly found in this study. ("Pharmaceuticals, hormones, and</p>	<p>A thorough discussion of endocrine disrupting compounds and constituents of emerging concern (including pharmaceutical and personal care products) is provided in Section 8C.1.5.4 of Appendix 8C, Screening Analysis. This discussion concludes that available information is not sufficient to estimate with certainty the magnitude of changes to these constituents due to the project alternatives.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>other organic wastewater contaminants in U.S. streams, 1999-2000: A national reconnaissance," an article published in the March 15, 2002 issue of Environmental Science &amp; Technology, v. 36, no. 6, pages 1202-1211. Data are presented in a companion USGS report, "Water-quality data for pharmaceuticals, hormones, and other organic wastewater contaminants in U.S. streams, 1999-2000" (USGS Open-File Report 02-94). These and other reports, data, and maps can be accessed on the Internet at <a href="http://toxics.usgs.gov">http://toxics.usgs.gov</a>.)</p> <p>PPCPs (pharmaceuticals and personal care products) are found where people or animals are treated with drugs and people use personal care products. PPCPs are found in any water body influenced by raw or treated sewage, including rivers, streams, ground water, coastal marine environments, and many drinking water sources. PPCPs have been identified in most places sampled. The U.S. Geological Survey (USGS) implemented a national reconnaissance to provide baseline information on the environmental occurrence of PPCPs in water resources. You can find more information about this project from the USGS's What's in Our Wastewaters and Where Does it Go? site. PPCPs in the environment are frequently found in aquatic environments because PPCPs dissolve easily and don't evaporate at normal temperature and pressures. Practices such as the use of sewage sludge ("biosolids") and reclaimed water for irrigation brings PPCPs into contact with the soil. (<a href="http://www.epa.gov/ppcp/faq.html#ifthereareindeed">http://www.epa.gov/ppcp/faq.html#ifthereareindeed</a>)</p>	
1610	193	<p>From the recent scientific investigations and literature it is reasonable to conclude that "constituents of emerging concern" (CECs) are present in the Delta at levels that cause toxicity in violation of the narrative toxicity objective. It is also reasonable to conclude that wastewater discharges into the Delta contains CECs in concentrations that at a minimum threaten to violate the Receiving Water Limitation for toxicity which prohibits toxic substances to be present in concentrations that produce detrimental physiological responses in human or aquatic life.</p> <p>U.S. Environmental Protection Agency has compiled a database: Treating Contaminants of Emerging Concern A Literature Review Database (August 2010). Local wastewater treatment system design Engineers, such as Dr. Robert Emerick, have also been testing treatment system capabilities for removing CECs. There appear to be treatment technologies that are capable of removing significant levels of CECs. The EIR does not sufficiently assess the current state of water quality within the Delta or compliance with the narrative toxicity objective. The Delta is 303d listed as impaired for unknown toxicity. CECs present more than a reasonable potential to be causing and/or contributing to this toxicity.</p>	See Response to Comment Letter 1610, Comment 192.
1610	194	<p>Temperature:</p> <p>The Water Quality section of the EIR states that: "Because the primary concern of water temperature is effects on fish and aquatic organisms, temperature is addressed in Chapter 11, Fish and Aquatic Resources." Any discussion of Water Quality is incomplete without including temperature. There are water quality objectives for temperature in the Basin Plan; Water Quality Objectives (Page III-8.00, Sacramento and San Joaquin Basins), and the Water Quality Control Plan for Temperature (Thermal Plan, an appendix to the Basin Plan). Elevated temperature is a pollutant and compliance with objectives is a relevant discussion with regard to water quality. Also, temperature directly affects the toxicity of other constituents such as ammonia. Temperature also impacts dissolved oxygen concentrations and may impact compliance with the DO objective. Strictly in terms of compliance with objectives and the impacts to other constituents, a thorough discussion of temperature</p>	<p>The water quality assessment does discuss temperature changes when relevant to the constituent being assessed. For example, in Impact WQ- 9 discusses the degree to which temperature changes could have an effect on dissolved oxygen concentrations. Temperature is also addressed in the assessment of Microcystis in Impact WQ-32. Ammonia concentrations are expected to be lower relative to existing conditions and similar to No Action conditions due to the alternatives, and very low in general relative to applicable criteria, therefore it was not necessary to discuss temperature in the development of impact conclusions.</p> <p>As noted by the commenter, the Basin Plan and Thermal Plan temperature objectives limit differences between upstream and downstream temperatures caused by a discharge. Thus, the Basin Plan and Thermal Plan objectives are not relevant for assessment of the project alternatives. It is more appropriate to consider absolute temperatures and changes in specific water bodies through comparison of alternatives to existing conditions and the No Action Alternative. As noted by the commenter, aquatic life species have specific temperature requirements. Hence, the discussion of temperature effects to aquatic life was placed</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>must be included in the Water Quality section of the EIR. The Water Quality section must be amended to discuss temperature, compliance with limitations, protection of beneficial uses and the impacts from the various alternatives described in the EIR.</p> <p>The temperature objectives in the Basin Plan and the Thermal Plan are principally based on antidegradation (changes in temperature) and not necessarily on the direct protection of beneficial uses of receiving water or the Delta. The Delta is home to numerous species of cold water fish and all life stages. Maximum temperatures for the protection of cold water fish species are well documented; and the Central Valley Regional Board has included specific temperature regimes in NPDES (National Pollutant Discharge Elimination System) permits, such as for the Cities of Lincoln and Placerville. Any discussion of temperatures must not be limited to regulatory compliance with objectives but must also discuss the temperatures necessary to assure a productive population of cold water aquatic life.</p>	<p>in Chapter 11, Fish and Aquatic Resources, to provide a complete discussion of impacts to aquatic life. Temperature regimes developed for wastewater treatment plant NPDES permits are not applicable to the assessment, as they were developed considering site-specific factors, including discharge temperature and flow, and receiving water hydrology. Please refer to Master Response 14.</p>
1610	195	<p>The EIR, Table 4-1. Overview of BDCP EIR/EIS Modeling Tools, shows that several models were used to simulate water quality projections for the various project alternatives:</p> <p>Artificial Neural Network (ANN) for CALSIM II An ANN has been developed for CALSIM II that attempts to mimic the flow-salinity relationships in the Delta, as simulated in DSM2. The ANN attempts to statistically correlate the salinity results from a particular DSM2 model run to the various peripheral flows (Delta inflows, exports and diversions), gate operations and an indicator of tidal energy.</p>	<p>This comment is consistent with the information included in the EIR/EIS.</p>
1610	196	<p>The EIR, Table 4-1. Overview of BDCP EIR/EIS Modeling Tools, shows that several models were used to simulate water quality projections for the various project alternatives:</p> <p>CALSIM II simulates operations of the SWP, CVP and areas tributary to the Sacramento-San Joaquin Delta. The model, based on inputted priorities and constraints, determines monthly river flows and diversions, Delta flows and exports, reservoir storage, deliveries to project and non-project users, and controls on project operations. CALSIM II results are used to determine water quality, hydrodynamics, and particle tracking in the DSM2 model.</p>	<p>The commenter describes the modeling tools used in the EIR/EIS.</p>
1610	197	<p>The EIR, Table 4-1. Overview of BDCP EIR/EIS Modeling Tools, shows that several models were used to simulate water quality projections for the various project alternatives:</p> <p>Delta Simulation Model II (DSM2) DSM2 is a one-dimensional mathematical model that simulates hydrodynamics, water quality, and particle tracking throughout the Delta based on flow data generated from CALSIM II outputs. It describes the existing conditions in the Delta as well as performs simulations for the assessment of incremental environmental effects caused by facilities and operations. The model can be used to calculate stages, flows, velocities, mass transport processes for conservative constituents, and transport of individual particles. HYDRO provides the flow input for QUAL and PTM. QUAL simulates one-dimensional fate and transport of conservative water quality constituents given a flow field simulated by HYDRO. PTM simulates pseudo three-dimensional transport of neutrally buoyant particles based on the flow field simulated by HYDRO.</p>	<p>This comment is consistent with the information included in the EIR/EIS.</p>
1610	198	<p>The EIR, Table 4-1. Overview of BDCP EIR/EIS Modeling Tools, shows that several models were used to simulate water quality projections for the various project alternatives:</p> <p>Particle Tracking Model (PTM) PTM simulates fate and transport of conservative and non-conservative water quality constituents throughout the Sacramento-San Joaquin Delta</p>	<p>This comment is consistent with the information included in the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		given a flow field simulated by HYDRO. The model uses velocity, flow, and stage output from DSM2-HYDRO. Outputs are used to estimate the effects of hydrodynamic changes on the fate and transport of larval fish, other covered species, and toxics through the Delta, as well as entrainment of larval fish at various locations. It allows assessment of particle fate, transport, and movement rate from numerous starting points to numerous end points. It provides information on movement of planktonic larval fish, such as delta and longfin smelt, in a tidal environment and is used extensively in Central Valley fishery assessments.	
1610	199	The EIR, Table 4-1. Overview of BDCP EIR/EIS Modeling Tools, shows that several models were used to simulate water quality projections for the various project alternatives:  DSM2-HYDRO is a one-dimensional hydraulic model used to predict flow rate, stage, and water velocity in the Delta and Suisun Marsh at a 15-minute timestep. DSM2-QUAL simulates multiple conservative and non-conservative constituents including dissolved oxygen, carbonaceous BOD, phytoplankton, organic nitrogen, ammonia nitrogen, nitrate nitrogen, organic phosphorus, dissolved phosphorus, TDS and temperature. The model is used to predict water temperature, dissolved oxygen, and salinity in the Delta and Suisun Marsh at a 15-minute timestep.	This comment is consistent with the information included in the EIR/EIS.
1610	200	The old adage about statistics also applies to Models; you can make them say anything that you want. Models can be a black box with a "trust us" outcome. The models design parameters, assumptions, input data, calibration and validation must be transparent in order to be able to meaningfully evaluate the ability to accurately project values. Even a good model is only as reliable as the data and assumptions that are used; or garbage in, garbage out.	The models used to support the water quality impact analysis are publicly available models that have been verified and used by the state and federal agencies for years for water project planning and analysis. Appendix 5A provides extensive information regarding the models used to support the water quality assessment. Please see Master Response 30 regarding Modeling.
1610	201	There is a significant amount of information available on the internet evaluating the technical merits of CALSIM II. One of the more credible documents, prepared by the University of California, Davis, Department of Civil Engineering, cites that in interviewing DWR and USBR management and modeling technical staff: "Many interviewees acknowledge that using CALSIM II in a predictive manner is risky and/or inappropriate, but without any other agency-supported alternative they have no other option." (CALSIM II in California's Water Community: Musing on a Model, Final Report 20 January 2004, Department of Civil and Environmental Engineering University of California, Davis) (Emphasis added) The report continues that: "All users agree that CalSim II needs better documentation of the model, data, inputs, and results. CalSim II is data-driven, and so it requires numerous input files, many of which lack documentation."; "There is considerable debate about the current and desirable state of CalSim II's calibration and verification."; "Its representation of the SWP and CVP includes many simplifications that raise concerns regarding the accuracy of results."; "Many interviewees are concerned that CalSim II's monthly time step cannot capture hydrologic variability adequately and thus does not compute water exports and export capacity accurately, both of which are significant factors in system operations." and, "The model's inability to capture within-month variations sometimes results in overestimates of the volume of water the projects can export from the Sacramento-San Joaquin Bay-Delta and makes it seem easier to meet environmental standards than it is in real operations."	The discussion within this comment is consistent with the information included in the referenced report (CALSIM II in California's Water Community: Musing on a Model, Final Report 20 January 2004, Department of Civil and Environmental Engineering University of California, Davis). No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
1610	202	The current BDCP draft is based on flawed hydrologic modeling and erroneous and biased scientific analysis. Significant errors in the underlying model, from which all effects were analyzed, call into question the analyses and conclusions throughout the entire BDCP and	Please see Master Response 30. The EIR/EIS modeling of Alternative 4 H1 through H4 was based on a No Action Alternative model developed in 2010. Models always evolve as the understanding of the system and operations improves and the assumptions are better defined. MBK's independent modeling of the No Action

DEIRS Ltr#	Cmt#	Comment	Response
		the DEIR/EIS. Indeed, the BDCP hydrologic model reveals that much of the text of the BDCP and DEIR/EIS are contradicted by information in the model, that some effects are understated or ignored completely, and that operations in the model violate the operational rules contained in the BDCP as currently proposed. One cannot help but conclude that the BDCP and the DEIR/EIS are simply a post hoc rationalization for an unsound concept.	<p>Alternative included different assumptions than the BDCP EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the BDCP EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – October north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK's modeling of the No Action Alternative and Alternative 4 result in different results from the BDCP EIR/EIS.</p> <p>The aggregate effect of the changed assumptions under MBK's modeling of Alternative 4 is resulting in increased Delta exports and a corresponding reduction in Delta outflow compared to the BDCP EIR/EIS.</p> <p>Further, as noted in the Tables 5-7 through 5-9 in Chapter 5, Water Supply, of the Draft BDCP EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting Delta outflow will be different under Alternative 4 compared to the No Action Alternative. The effects of changes in Delta outflow on water quality, fisheries and other environmental resources under Alternative 4 are analyzed in respective resource Chapters of the EIR/EIS.</p>
1610	203	Even with a flawed approach and analysis, the DEIR/EIS indicates that the BDCP will result in a lengthy list of significant and unavoidable impacts (at least 48 of them). The residents and communities of the Bay/Delta and its watershed will bear a disproportionate burden of these impacts, which will benefit agricultural and urban water users south of the Delta. Specifically, the proposed water operations (i.e., water intakes, pumps and water conveyance tunnels) will cause long-term and irreversible land use compatibility impacts, along with significant disruption (and likely permanent destruction) of the existing rural and agricultural lifestyle and land use pattern, along with future land uses.	Please refer to Chapter 14, Agriculture and Chapter 13, Land Use regarding agricultural and land use impacts under the preferred alternative, 4A. While some impacts would remain significant and unavoidable, Alternative 4A has been selected as the preferred alternative because it meets the project's objectives while also decreasing many of the impacts from the previous preferred alternative, 4. Please also refer to Master Response 10 regarding significant and unavoidable impacts.
1610	204	As proposed, the BDCP will not produce additional water for an ecosystem that is obviously dependent on a permanent and high quality source of water, nor will it aid in the recovery of endangered aquatic species. Substantial questions have been raised about the BDCP's ability to meet any of the required standards for protecting listed species, and it depends on uncertain and speculative funding sources. As such, it does not meet any of the essential criteria for approval of a Habitat Conservation Plan (HCP) or Natural Communities Conservation Plan (NCCP), and it fails to comply with the Delta Reform Act.	Please see response to comment 1610-49, 48, and 44. In addition please see Master Response 5 regarding Costs.
1610	205	[ATT 3: Attachment A -- Draft Combined Criteria Tables]	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.
1610	206	[ATT 4: Attachment B -- Bibliography]	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.
1611	1	The 40,000 pages of BDCP drafts violate the NEPA regulation, 40 C.F.R. 1502.7, specifying that Draft EIS text shall normally not exceed 150 pages and "for proposals of unusual scope or complexity shall normally be less than 300 pages." Here, the volume was calculated to overwhelm the public.	Please see Master Response 38. It explains that the EIR/EIS is the result of many years of collaboration and analysis necessary to review a project that would impact the Delta and water supplies for millions for Californians. The size and complexity of the document reflect an unprecedented effort to analyze a proposed project, no action alternative and 17 alternatives.
1611	2	There was silence on the profound issue of whether to increase the capacity to divert more water from the Sacramento River, sloughs, and the San Francisco Bay Delta or instead begin to reduce exports. The BDCP agencies ignored and refused to consider any alternatives that would reduce exports. Consequently, there was no alternatives section "sharply" defining	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. A modified proposed project (Alternative 4A/California WaterFix) is being considered. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a

DEIRS Ltr#	Cmt#	Comment	Response
		the issues as required by 40 C.F.R. 1502.14, and no rigorous exploration and objective evaluation of "all reasonable alternatives" required by that regulation.	discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.
1611	3	Friends of the River (FOR) objects to the approval of the Bay Delta Conservation Plan (BDCP) including the Delta Water Tunnels, Preferred Alternative 4, of the Draft Environmental Impact Report/Environmental Impact Statement EIR/EIS. (EIR/EIS, 3-3). That alternative is referred to as the BDCP "Proposed Action" in Chapter 9 of the Plan. FOR also objects to the approval of any other existing, revised, or new alternative that would include new, upstream conveyance from the Delta.	The range of alternatives includes operations criteria which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 4A, 4H1, 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under Existing Conditions. Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under the No Action Alternative. As exports are reduced, Delta outflows increase. The range of alternatives included in the EIR/EIS would result in a wide range of changes in Delta outflows as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 2A, 2B, 2C; 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under Existing Conditions. Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under the No Action Alternative. For more information regarding purpose and need please see Chapter 2 of the FEIR/EIS and Master Response 3.
1611	4	The Water Tunnels would divert enormous quantities of water from the Sacramento River near Clarksburg, California. The water would be shipped south through two giant, 40-mile long Tunnels for diversion to the Central Valley and State Water Projects. As a result of this massive diversion, enormous quantities of water that presently flow through the Sacramento River and sloughs to and through the Sacramento-San Joaquin Delta would not reach the Delta, and flows would be reduced in the Sacramento River and sloughs. There would also be adverse cumulative effects, ranging from rising sea levels and reduced snowpack and runoff due to climate change to changes in upstream reservoir operations and current preservation of flows for fishery purposes all the way upstream to the Shasta, Trinity, Oroville, and Folsom reservoirs.	The action alternatives could only divert the amount of water under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. More information on the ranges of proposed water diversions, based on water year types and specific flow criteria, can be found in Chapter 3, Section 3.6.4.2, North Delta and South Delta Water Conveyance Operational Criteria, EIR/EIS. Water rights by other water users are not affected to meet the water quality objectives. The BDCP EIR/EIS analyzed the effects of the climate change and sea level rise in the Delta and in the reservoirs in the Delta watershed through the comparison of conditions under the action alternatives to conditions under the Existing Conditions. The operational criteria are the same for the upstream reservoirs under the Existing Conditions, No Action Alternative, Proposed Project, and all action alternatives.
1611	5	Friends of the River objects to preparation, approval, or issuance of a BDCP Final EIR, Final EIS, Final EIR/EIS, Final Plan, and/or Final Implementing Agreement (IA) for the BDCP. The Draft EIR/EIS and Plan issued for public review in December 2013 and the Draft IA issued in May 2014 are so inadequate for the purpose of providing meaningful public and decision-maker review that a new Draft EIR/EIS, Draft Plan, and Draft IA must be prepared and issued to provide an adequate basis for such review pursuant to the requirements of the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and the Endangered Species Act (ESA). The 40,000 pages of project advocacy and speculation making up the BDCP Plan, Draft EIR/EIS, appendices and IA are worthless for the purpose of providing informed public and decision-maker review.	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.  Please see Master Response 38. It explains that the EIR/EIS is the result of many years of collaboration and analysis necessary to review a project that would impact the Delta and water supplies for millions for Californians. The size and complexity of the document reflect an unprecedented effort to analyze a proposed project, no action alternative and 17 alternatives.
1611	6	Violations of alternatives requirements under NEPA, CEQA, and ESA.  There is no legally sufficient development and assessment of BDCP alternatives.  Development and evaluation of a range of reasonable alternatives are the declared "heart" of both the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) required EISs and EIRs. Despite that, the alternatives section (Chapter 3) of the Draft EIR/EIS and the Endangered Species Act (ESA) required Alternatives to Take section (Chapter 9) of the BDCP Draft Plan fail to include even one, let alone the CEQA, NEPA and ESA required range of, reasonable alternatives that would increase water flows in the San Francisco Bay-Delta by reducing exports. These serious violations of law require corrective	Please note that the BDCP is no longer the Proposed Project. The Proposed Project is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input following publication of the 2013 Draft EIR/EIS.  Evaluation of the Proposed Project was presented in a joint RDEIR/SDEIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This EIR/EIS is intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the

DEIRS Ltr#	Cmt#	Comment	Response
		<p>action by developing and including the required range of reasonable alternatives in a new Draft EIR/EIS and Alternatives to Take Chapter in the BDCP Plan. A new public review and comment period is necessary so the public can evaluate and comment on a range of reasonable alternatives.</p> <p>"The overall goal of the BDCP is to restore and protect ecosystem health, water supply, and water quality with a stable regulatory framework." (Plan, 5. 1-1, all citations to BDCP Plan chapter and page number unless otherwise indicated). "The BDCP will contribute to the restoration of Sacramento-San Joaquin River Delta (Delta) ecosystems largely by addressing ecological functions and processes on a broad landscape scale. Proposed actions will result in fundamental, systemic, long-term physical changes to the Delta. These changes include substantial alterations to water conveyance and management and extensive restoration of tidal, floodplain, and terrestrial natural communities."</p> <p>(Id.)</p> <p>"The complexity [of chapter 5] is inevitable because of the large size of the Plan Area, the large number of natural communities and covered species addressed, the scale of the covered activities, the long-term horizon of the Plan, the intrinsic and often highly variable properties of the Bay-Delta environment (e.g., salinity gradients, hydrology, projected effects of climate change) and the confounding effects that climate change may have on ecosystems and species in the Plan Area."</p> <p>(Plan, 5. 1-2).</p> <p>The BDCP omission of alternatives reducing exports to increase flows is deliberate. A claimed purpose of the BDCP Plan is "reducing the adverse effects on certain listed [fish] species due to diverting water." (BDCP Draft EIR/EIS Executive Summary, p. ES-10, all citations to Draft EIR/EIS chapter and page number unless otherwise indicated). "There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta." (Id.). The omission of a range of reasonable alternatives reducing exports to increase flows violates CEQA, NEPA and the ESA. The failure to include even one alternative reducing exports to increase flows is incomprehensible. Alternatives reducing the exporting/diversion of water are the obvious direct response to the claimed BDCP purpose of "reducing the adverse effects on certain listed [fish] species due to diverting water." (Id.)</p> <p>The BDCP agencies have been marching along for at least three years in the face of "red flags flying" in their deliberate refusal to develop and evaluate a range of reasonable alternatives, or indeed, any alternatives that would increase flows by reducing exports. Three years ago the National Academy of Sciences declared in reviewing the then-current version of the draft BDCP that: "[c]hoosing the alternative project before evaluating alternative ways to reach a preferred outcome would be post hoc rationalization – in other words, putting the cart before the horse. Scientific reasons for not considering alternative actions are not presented in the plan." (National Academy of Sciences, Report in Brief at p. 2, May 5, 2011).</p> <p>More than two years ago, on April 16, 2012, the Co-Facilitators of the Environmental Water Caucus (EWC) transmitted a short, 1½ page letter to Gerald Meral, Deputy Secretary of the California Resources Agency, sharing "concerns with the current approach and direction of the [BDCP] project and we would like to share those concerns with you." (Letter, p. 1). Most of the paragraphs in the letter dealt with the types of issues involving consideration of</p>	<p>Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Chapter 3 of the FEIR/EIS for additional information on Proposed Project operations.</p> <p>Appendix 3A describes the range of alternatives considered under the Project Objectives and Purpose and Need, and the reasons that several alternatives were not analyzed in detail in the EIR/EIS, including a proposal to specifically reduced Delta exports. For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>It should be noted that the No Action Alternative and Alternatives 2A, 2B, 2C; 2D, 4A, 4H2, 4H3, 4H4; 5; 5A, 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under Existing Conditions. Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under the No Action Alternative. The range of alternatives also includes alternatives which would result in less Delta exports on an average annual basis as compared to Existing Conditions and the No Action Alternative (see Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS).</p> <p>Please see Master Responses 28 and 5 for more information regarding operational scenarios and compliance with ESA respectively. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives are provided in Master Response 4. For more information regarding water demand management please see Master Response 6.</p> <p>It should be noted that the Proposed Project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).</p> <p>The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 5 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>alternatives. The penultimate paragraph of the letter specifically pointed out:</p> <p>"The absence of a full range of alternatives, including an alternative which would reduce exports from the Delta. It is understandable that the exporters, who are driving the project, are not interested in this kind of alternative; however, in order to be a truly permissible project, an examination of a full range of alternatives, including ones that would reduce exports, needs to be included and needs to incorporate a public trust balancing of alternatives."</p> <p>(Letter, p. 2). Friends of the the River (FOR) has already attached (for BDCP.Comments@noaa.gov) and incorporated by reference a copy of the April 16, 2012, EWC letter. (FOR/EWC comment letter May 28, 2014).</p> <p>On December 15, 2012 by email, and December 17, 2012 by letter, Nick Di Croce, Co-Facilitator of the EWC transmitted the EWC's Reduced Exports Plan to the California Resources Agency Deputy Secretary and requested "that you include it among the alternatives to be included in the BDCP." On November 18, 2013, Friends of the River submitted a comment letter in the BDCP process urging those carrying out the BDCP to review the "Responsible Exports Plan [a later, more detailed version of the Reduced Exports Plan]" proposed by the EWC:</p> <p>"...as an alternative to the preferred tunnel project. This Plan calls for reducing exports from the Delta, implementing stringent conservation measures but no new upstream conveyance. This Plan additionally prioritizes the need for a water availability analysis and protection of public trust resources rather than a mere continuation of the status quo that has led the Delta into these dire circumstances. Only that alternative is consistent with the EPA statements indicating that more outflow is needed to protect aquatic resources and fish populations. The EWC Responsible Exports Plan is feasible and accomplishes project objectives and therefore should be fully analyzed in a Draft EIS/EIR."</p> <p>(FOR November 18, 2013 comment letter at p. 3, Attachment 4 to FOR January 14, 2014 comment letter).</p> <p>FOR specifically pointed out (at p. 3, fn. 1) that the plan was online at <a href="http://www.ewccalifornia.org/reports/resonsibleexpltplanmay2013.pdf">http://www.ewccalifornia.org/reports/resonsibleexpltplanmay2013.pdf</a>.</p> <p>By this letter, we repeat the demand for consideration of the "Responsible Exports Plan" (2013) alternative (attached to FOR May 21, 2014 comment letter) and reasonable variants on that alternative. This demand follows up EWC's similar requests from April 16, 2012 and FOR's requests that have to date been ignored in the BDCP process. Obvious variants on the Responsible Exports Plan alternative creating a range of reasonable alternatives will include reducing exports to both more and less than the 3,000,000 acre-feet limit on exports called for by the Responsible Exports Plan alternative as well as phasing in reductions in exports over time.</p> <p>The BDCP agencies have failed to produce an alternatives section that "sharply" defines the issues and provides a clear basis for choice among options as required by NEPA Regulations. 40 C.F.R. [Section] 1502.14. The choices presented should include increasing flows by reducing exports, not just reducing flows by increasing the capacity for exports as is called for by all of the so-called "alternatives" presented in the BDCP Draft Plan and EIR/EIS. No matter how badly the BDCP proponents do not want to reduce exports and increase flows,</p>	

DEIRS Ltr#	Cmt#	Comment	Response
		<p>during the Draft CEQA, NEPA and ESA processes inclusion of such alternatives as part of a range of reasonable alternatives is mandatory.</p> <p>By way of brief summary, actions called for by the Responsible Exports Plan alternative include no development of new upstream conveyance; reducing exports to no more than 3,000,000 acre-feet in all years in keeping with State Water Resources Control Board (SWRCB) flow criteria; water efficiency and demand reduction programs including urban and agricultural water conservation, recycling, storm water recapture and reuse; reinforced levees above PL 84-99 standards; installation of improved fish screens at existing Delta pumps; elimination of irrigation water on drainage-impaired farmlands south of the Bay-Delta; return the Kern Water Bank to State control; restore Article 18 urban preference; restore the original intent of Article 21 surplus water in SWP contracts; conduct feasibility study for Tulare Basin water storage; provide fish passage above and below Central Valley rim dams for species of concern; and retain cold water for fish in reservoirs.</p> <p>The Responsible Exports Plan alternative calls for a statewide benefit-cost analysis to determine economic desirability of any plan or alternative; water availability analysis to align water needs with availability; protecting the Delta ecosystem pursuant to public trust obligations; and meeting NCCP recovery standards for listed fish species. Other obvious alternatives would include actions ranging from meeting ESA recovery standards for listed fish species, to halting the planting of almond orchards that cannot be followed in dry years on desert lands receiving export waters, to consideration of the development of desalinated water supplies as is being done in the San Diego County Water Authority. (Plan, 9-43).</p>	
1611	7	<p>The failure of the BDCP agencies to even consider the responsible exports alternative is inexplicable given that the alternative was considered, albeit inadequately, by the Delta Stewardship Council (DSC) and found to be environmentally superior in many respects.</p> <p>The Delta Stewardship Council issued the Recirculated Draft Program Environmental Impact Report (RDEIR) for the Draft Delta Plan back on November 30, 2012. Included was Delta Plan Alternative 2. (RDEIR 25-4). The RDEIR stated that "Development of Alternative 2 was informed by proposals from environmental organizations led by the Environmental Water Caucus (EWC). It involves sharply decreased water exports from the Delta and its watershed to areas that receive Delta water (limited to a maximum of 3,000,000 acre-feet/year)." (Id.)</p> <p>The RDEIR conceded that "Overall, Alternative 2 would have less water quality impacts than the revised Project, because it involves fewer facilities and less diversions of water from the Delta and Delta watershed." (RDEIR 25-6). The RDEIR also conceded that "Alternative 2 contributes more to improving conditions for biological resources and arresting ecosystem decline than the Revised Project." (RDEIR 25-7). Finally, it was conceded that the EWC Alternative "would also eliminate the water quality impacts associated with agricultural runoff water from Tulare Late Basin agriculture and areas with drainage constraints in the San Luis Drainage Area. It is thus environmentally superior to the Revised Project with respect to these types of impacts." (RDEIR Executive Summary, ES-10; 25-18). Ultimately, the DSC did not adopt Alternative 2, claiming that it was "slightly environmentally inferior to the Revised Project primarily because of its impacts on water supply reliability." (RDEIR 25-17, 18).</p> <p>The lawfulness of the DSC Delta Plan and the compliance of the Delta Plan EIR are presently in litigation in the Sacramento County Superior Court. FOR is one of the plaintiffs challenging the DSC's actions under CEQA and the Delta Reform Act. Whether or not the DSC proceeded</p>	<p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. The specific proposals that were considered but not evaluated in detail by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.</p> <p>It should be noted that the Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).</p> <p>Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the EIR/EIS. Please see Master Response 4 for discussion of the scope of the proposed project and alternatives (such as water storage) that were not carried forward for analysis in this document due to the fact that they required actions beyond the scope of the proposed project.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>in the manner required by law when it did not adopt the EWC Alternative is one subject of that litigation. Here, it is inexplicable that the BDCP agencies did not even consider or disclose the EWC Alternative or develop any other alternatives reducing exports for inclusion in the BDCP Draft EIR/EIS and in the draft alternatives to take chapter of the BDCP Draft Plan.</p> <p>Instead of enthusiastically embracing the duties mandated by our environmental laws to develop and consider a range of reasonable alternatives, the BDCP proponents have concealed or misrepresented reasonable alternatives presented to them. The EWC Responsible Exports Plan has been concealed and ignored. It is excluded from the alternatives chapters in the BDCP Plan and Draft EIR/EIS.</p>	
1611	8	<p>Declining fish populations cry out for evaluation of alternatives increasing flows.</p> <p>There should be a range of alternatives in the BDCP Draft EIR/EIS starting with the Responsible Exports Plan and related variants of that alternative. Several listed fish species are already in catastrophic decline in the subject area. The reaches of the Sacramento River, sloughs, and the Delta that would lose significant quantities of freshwater and freshwater flows through operation of the proposed BDCP water tunnels are designated critical habitats for listed endangered and threatened fish species including winter-run Chinook salmon, Central Valley spring-run Chinook Salmon, Central Valley steelhead, southern distinct population segment of North American green sturgeon, and Delta smelt.</p> <p>As explained last year by the U.S. Fish and Wildlife Service (USFWS) "There is clear evidence that most of the covered fish species have been trending downward." (USFWS Staff BDCP Progress Assessment, Section 1.2, p. 4, April 3, 2013). The National Marine Fisheries Service (NMFS) has pointed out that the water tunnels threaten the "potential extirpation of mainstream Sacramento River Populations of winter-run and spring-run Chinook salmon over the term of the permit..." (NMFS Progress Assessment, [Section] 1.17, 12, April 4, 2013). As explained by the Environmental Protection Agency [(EPA)] in its 2013 letter to the SWRCB [State Water Resources Control Board], "The State Board...has recognized that increasing freshwater flows is essential for protecting resident and migratory fish populations." (EPA letter to SWRCB re: EPA's comments on the Bay-Delta Water Quality Control Plan; Phase 1; SED, p. 1-2, March 28, 2013). The EPA has also explained with respect to Administrative Drafts of the BDCP documents that "many of these scenarios of the Preferred Alternative 'range' appear to decrease Delta outflow (p. 5-52), despite the fact that several key scientific evaluations by federal and State agencies indicate that more outflow is necessary to protect aquatic resources and fish populations." (EPA Comments on Administrative Draft EIR/EIS, III Aquatic Species and Scientific Uncertainty, Federal Agency Release, July 18, 2013).</p>	<p>Please see Master Response 4.</p> <p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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. The SWRCB's flow criteria recommendations and how they were used to inform the planning process are discussed in detail in Appendix 3A of the EIR/EIS. For more information regarding supplemental modeling requested by the SWRCB related to increased Delta outflows please see Appendix 5E of the FEIR/EIS.</p> <p>The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (see, e.g., Cal.Wat. Code, § 85001[c]). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment in the south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-Art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11 of the EIR/EIS and Master Response 17.</p>
1611	9	<p>The Delta Reform Act requires that:</p> <p>"For the purpose of informing planning decisions for the Delta Plan and the Bay Delta Conservation Plan, the board [State Water Resources Control Board (SWRCB)] shall, pursuant to its public trust obligations, develop flow criteria for the Delta ecosystem necessary to protect public trust resources. In carrying out this section, the board shall review existing water quality objectives and use the best available scientific information. The flow criteria for the Delta ecosystem shall include the volume, quality, and timing of water necessary for the Delta ecosystem under different conditions. "</p>	<p>As described in Appendix 3A, Identification of Water Conveyance Alternatives, EIR/EIS, comments and suggestions received from the State Water Board were influential in defining the range and content of alternatives considered in the EIR/EIS, including the State Water Board's Delta Flow Criteria Report, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009. Scoping comments from the State Water Board included requests for an alternative providing for reduced diversions and an alternative incorporating changes to Delta outflows (and potentially inflows) that would reflect a more natural hydrograph. The Lead Agencies determined that an additional alternative would be required to be responsive to the State Water Board's comments. Informed by these comments, as well as several letters from the State Water Board to the Natural Resources Agency, DWR met with State Water Board staff to</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(California Water Code [Section] 85086(c)(1).)</p> <p>The State Water Resources Control Board did develop flow criteria, published at: <a href="http://www.swrcb.ca.gov/waterrights/water_issues/bay_delta/flow">www.swrcb.ca.gov/waterrights/water_issues/bay_delta/flow</a> on August 3, 2010, p. 5.</p> <p>The criteria include:</p> <p>75% of unimpaired Delta outflow from January through June;</p> <p>75% of unimpaired Sacramento River inflow from November through June; and</p> <p>60% of unimpaired San Joaquin River inflow from February through June.</p> <p>These recommendations have not been the basis for the BDCP's preferred Water Tunnels project, and would preclude development of the preferred alternative making that alternative infeasible pursuant to water quantity and quality considerations. In contrast, the Environmental Water Caucus's Responsible Exports Plan alternative reduces exports to increase flows and is designed to comply with SWRCB flow criteria. The BDCP Draft EIR/EIS does not use the SWRCB flow criteria to evaluate alternatives, nor does the BDCP process await completion of pending SWRCB proceedings to update flow objectives.</p>	<p>identify a general approach to model an increased spring Delta outflow alternative. This alternative was designed to increase spring Delta outflow by approximately 1.5 million acre-feet, on average, above the NEPA baseline assumptions. This became Alternative 8 as analyzed in the EIR/EIS.</p> <p>Consideration of the specific determination contained in the Delta Flow Criteria Report, which identified 75% of unimpaired net Delta outflow for January through June, would not have been feasible to include as an alternative in the EIR/EIS. A letter from the Executive Director of the State Water Board to the deputy secretary of the Natural Resources Agency on April 19, 2011 recognized that the determination did not consider the competing needs for water or other public trust resource needs, such as the need to manage cold-water resources in tributaries to the Delta. Further, implementation of these flows would also likely affect water users beyond those receiving CVP and SWP deliveries south of the Delta. As described in Section 3A.3.5, alternatives requiring impairment of senior water rights held by entities not participating in the BDCP were eliminated from full consideration in the EIR/EIS, as such rights could not be infringed by CDFW, USFWS, or NMFS through those agencies' actions or through "ESA Section 7 consultation" with Reclamation.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p>
1611	10	<p>The basic, flawed BDCP premise that taking water away from the fish and their habitats will be good for them is both nonsensical and contrary to science. As the Environmental Protection Agency [(EPA)] has noted, "[t]he benefits of increasing freshwater flows can be realized quickly and help struggling fish populations recover." (EPA comments on the Bay-Delta Water Quality Control Plan; Phase 1; SED, March 28, 2013 at 1). It is necessary that the BDCP process develop and consider a range of reasonable alternatives that increase Delta outflow. Fair evaluation and consideration of a range of alternatives reducing exports would be a required first step in that process.</p> <p>Alternatives reducing exports are consistent with the claimed project purpose of "reducing the adverse effects on certain listed species due to diverting water." (EIR/EIS, ES-10). Such alternatives are also consistent with findings that "the Delta is now widely perceived to be in crisis. There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta." (Id.). On the other hand, the stated purpose to "restore and protect the ability of the SWP and CVP to deliver up to full contract amounts" is contrary to the prevalence of "paper water" reflected by "information indicating that quantities totaling several times the average unimpaired flows in the Delta watershed could be available to water users based on the face value of water permits already issued." (Id. At ES-10 &amp; 11).</p>	<p>The proposed project was developed to meet the standards of the federal and state Endangered Species Acts; as such it is intended to be environmentally beneficial, not detrimental, The proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for more information on the purpose and need for the project.</p> <p>Please see Master Response 4. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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.</p> <p>The concept of providing increased predictability is part of the Project Objectives and Purpose and Need for the BDCP alternatives as indicated in Chapter 35, Glossary, of the Draft BDCP EIR/EIS, under the definition of "water supply reliability." This term is defined as "The occurrence of water supplies of sufficient quality and certainty to enhance or sustain a diverse portfolio of economic activity and ecosystem health and maintain quality of life." The alternatives were developed to deliver SWP and CVP water up to the upper limit of legal SWP and CVP contractual water amounts, with the understanding that full contract amounts would not be delivered on average for the alternatives considered in the BDCP EIR/EIS.</p> <p>For more information regarding impacts to aquatic resources please see Chapter 11 of the FEIR/EIS. For more information regarding supplemental modeling results for the new alternatives please see Appendix B of the RDEIR/SDEIS.</p>
1611	11	<p>Alternatives such as the Responsible Exports Plan Alternative are 21st century alternatives focused on cost-effective measures, such as conservation and recycling, to establish a more reliable water supply, as opposed to costly huge delivery projects further depleting our rivers and the San Francisco Bay-Delta.</p>	<p>Please see Master Response 4. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>None of the positive water supply availability action measures in the Responsible Exports Plan alternative (or the Natural Resources Defense Council's Portfolio alternative) have been included as alternatives or portions of alternatives in the BDCP Draft EIR/EIS or alternatives to take Plan chapter. The water tunnels proponents have "tunnel vision" confined to the sole alternative of developing new upstream conveyance. Moreover, there is no consideration of the lost opportunity cost that would result from the billion dollar construction and operation of the water tunnels instead of the development of such modern water supply measures as conservation and recycling.</p>	<p>Appendix 3A thoroughly explains why various proposals were not analyzed in detail 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.</p> <p>The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta.</p> <p>Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Please refer to Master Response 6 and Appendix 1C, Demand Management Measures, for further information on demand management measures, including increasing agricultural water use efficiency and water conservation.</p>
1611	12	<p>The failure to include a range of reasonable alternatives violates CEQA. An EIR must "describe a range of reasonable alternatives to the project...which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." 14 Code Cal. Regs (CEQA Guidelines) [Section] 15126.6(a). "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." 14 Code Cal. Regs [Section] 15126.6(b). Recirculation of a new Draft EIR/EIS will be required by CEQA Guidelines Section 15088.5(a)(3) because the Responsible Exports Plan alternative and other alternatives that would reduce rather than increase exports have not been previously analyzed, but must be as part of a range of reasonable alternatives.</p> <p>In addition, EIR conclusions must be supported by substantial evidence. "Argument, speculation, unsubstantiated opinion or narrative...does not constitute substantial evidence." CEQA guidelines, [Section] 15384. All that the BDCP Draft EIR/EIS contains to support the Preferred Project alternative is argument, speculation, unsubstantiated opinion, narrative and saying "we don't know." For example, the Draft EIR/EIS made "no determination (ND)" findings under NEPA as to whether the Water Tunnels, even after "mitigation," would have adverse impacts on spawning, incubation habitat, and migration conditions for winter-run Chinook salmon and spring-run Chinook salmon; and migration conditions for fall-run Chinook salmon, steelhead, green Sturgeon, and white Sturgeon. (EIR/EIS, ES-73, ES-75, ES-77, ES-79, ES-81, &amp; ES-83). A new Draft EIR/EIS must be prepared and recirculated because "the draft EIR[EIS] was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (CEQA Guidelines [Section] 15088.5(a)(4).)</p>	<p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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.</p> <p>The proposed project is not the sole project in California tasked with solving California's water supply future. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p> <p>Although the Proposed Project, if approved, would be a critically important tool for managing California's water resources, it is not a statewide solution to California's water supply reliability problems. For more information regarding impacts to aquatic resources and its associated mitigation measures please see Chapter 11 of the Final EIR/EIS.</p>
1611	13	<p>Under the NEPA Regulations, "This [alternatives] section is the heart of the environmental impact statement. The alternatives section should "sharply" define the issues and provide a</p>	<p>As described in Appendix 3A, Identification of Water Conveyance Alternatives, EIR/EIS, comments and suggestions received from the State Water Board were influential in defining the range and content of</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>clear basis for choice among options by the decision-maker and the public." 40 C.F.R. [Section] 1502.14. The EIS alternatives section is supposed to "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. [Section] 1502.14(a). Moreover, if "a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action." (40 C.F.R. [Section] 1502.9[a].)</p> <p>Instead of discussing all major points of view, lost in the 40,000 pages of BDCP Plan and Draft EIR/EIS advocacy and speculation are any alternatives reducing exports and increasing flows instead of constructing and operating expensive new upstream diversions with the capacity to increase exports and reduce flows. Under NEPA as well as CEQA, recirculation of a new Draft EIR/EIS will be required because of the extreme deficiencies in the current Draft EIR/EIS. The deficiencies in the Draft EIR/EIS cannot and will not be evaded by responses to comments in a Final EIR/EIS.</p>	<p>alternatives considered in the EIR/EIS, including the State Water Board's Delta Flow Criteria Report, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009. Scoping comments from the State Water Board included requests for an alternative providing for reduced diversions and an alternative incorporating changes to Delta outflows (and potentially inflows) that would reflect a more natural hydrograph. The Lead Agencies determined that an additional alternative would be required to be responsive to the State Water Board's comments. Informed by these comments, as well as several letters from the State Water Board to the Natural Resources Agency, DWR met with State Water Board staff to identify a general approach to model an increased spring Delta outflow alternative. This alternative was designed to increase spring Delta outflow by approximately 1.5 million acre-feet, on average, above the NEPA baseline assumptions. This became Alternative 8 as analyzed in the EIR/EIS.</p> <p>Consideration of the specific determination contained in the Delta Flow Criteria Report, which identified 75% of unimpaired net Delta outflow for January through June, would not have been feasible to include as an alternative in the EIR/EIS. A letter from the Executive Director of the State Water Board to the deputy secretary of the Natural Resources Agency on April 19, 2011 recognized that the determination did not consider the competing needs for water or other public trust resource needs, such as the need to manage cold-water resources in tributaries to the Delta. Further, implementation of these flows would also likely affect water users beyond those receiving CVP and SWP deliveries south of the Delta. As described in Section 3A.3.5, alternatives requiring impairment of senior water rights held by entities not participating in the BDCP were eliminated from full consideration in the EIR/EIS, as such rights could not be infringed by CDFW, USFWS, or NMFS through those agencies' actions or through "ESA Section 7 consultation" with Reclamation.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>Please see Master Response 38. It explains that the EIR/EIS is the result of many years of collaboration and analysis necessary to review a project that would impact the Delta and water supplies for millions for Californians. The size and complexity of the document reflect an unprecedented effort to analyze a proposed project, No Action Alternative and 17 alternatives.</p>
1611	14	<p>With respect to the ESA, we have commented several times over the past year that the failure of the federal agencies to prepare the ESA required Biological Assessments and Opinions violates both the ESA Regulations "at the earliest possible time" requirement and the NEPA Regulations "concurrently with and integrated with" requirement. (50 C.F.R. [Section] 402.14(a); (40 C.F.R. [Section] 1502.25(a); FOR January 14, 2014 comment letter and its four attachments). The missing Biological Assessments and Biological Opinions would be essential to any meaningful public review and comment on a project claimed to be responsive to declining fish populations.</p>	<p>A biological opinion is not required prior to the release of the Draft BDCP/CWF EIR/EIS. 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. The Biological Assessment has been completed and formal consultation with NMFS and USFWS is underway. The ROD will not be signed until biological opinions are issued by USFWS and NMFS.</p>
1611	15	<p>As conceded by BDCP Chapter 9, Alternatives to Take, the analysis of take alternatives must explain "why the take alternatives [that would cause no incidental take or result in take levels below those anticipated for the proposed actions] were not adopted." (BDCP Plan, Chapter 9, pp. 9-1, 9-2). Here, the lead agencies failed to even develop let alone adopt alternatives reducing exports and increasing flows to eliminate or reduce take. The agencies ignored the Responsible Exports Plan (and the earlier Reduced Exports Plan version) alternative that was handed to them on a silver platter a full year before they issued the Draft Plan and Draft EIR/EIS for public review and comment.</p> <p>In short, the fundamental flaws in the alternatives sections in the BDCP Draft EIR/EIS and Chapter 9 of the BDCP plan have led to a Draft EIR/EIS and Alternatives to Take analysis "so fundamentally and basically inadequate and conclusory in nature that meaningful public</p>	<p>Please see Master Response 4. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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.</p> <p>It is projected that water deliveries from the federal and state water projects under the Proposed Project would be similar to the average annual amount of water that would be diverted under the No Action</p>

DEIRS Ltr#	Cmt#	Comment	Response
		review and comment were precluded."	Alternative (i.e. 2025 conditions without the Proposed Project).
1611	16	<p>The most important and fundamental planning decision in the history of the Delta will be whether to finally begin to reduce exports and increase flows or to develop massive, new upstream conveyance from the Delta. An epic choice will be made between those two basic options. The BDCP Plan and Draft EIR/EIS are hopelessly deficient because they fail to set out this choice, let alone illuminate, the bases for making the epic decision that will determine whether five or more endangered and threatened species of fish become extinct.</p>	<p>Please see Master Response 3 for a description of the project's purpose and need.</p> <p>The proposed project is intended to provide a more reliable water supply, with diversions that are more protective for fish, in accordance with the Delta Reform Act's co-equal goals of improving water supply reliability and Delta ecosystem health. The new water supply intakes on the Sacramento River would be operated in conjunction with the existing SWP and CVP south Delta export operations to improve conditions for Delta fish and aquatic resources and provide for a more predictable and reliable water supply.</p> <p>Please see Master Response 4. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. 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.</p> <p>The range of alternatives includes operations criteria which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 4A, 4H1, 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under Existing Conditions. Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under the No Action Alternative. As exports are reduced, Delta outflows increase. The range of alternatives included in the EIR/EIS would result in a wide range of changes in Delta outflows as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 2A, 2B, 2C; 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under Existing Conditions. Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under the No Action Alternative. For more information regarding purpose and need please see Chapter 2 of the FEIR/EIS and Master Response 3.</p>
1611	17	<p>The failure to include any alternatives reducing exports was an intentional, bad faith violation of NEPA, CEQA, and the Endangered Species Act (ESA). The omission was calculated to deprive the public of the opportunity to support an alternative that the exporters do not want to see the light of day. Extinction is forever. Alternatives reducing exports that would make extinction less likely must be developed and considered in a new Draft EIR/EIS and alternatives to take evaluation process.</p> <p>Additional reasons why the BDCP Draft EIR/EIS fails to provide an adequate range of alternatives under CEQA and NEPA:</p> <p>The BDCP logic that removing water from the Delta will help restore it is the ecological equivalent of a modern doctor bloodletting a patient in order to cure illness. Science undeniably shows that the project will be harmful, but government has chosen to carry on anyway.</p> <p>There is a critical problem with the BDCP Draft EIR/EIS. CEQA and NEPA require proposals of reasonable alternatives to the project, but the BDCP Draft EIR/EIS alternatives are essentially the same plan dressed up in different outfits; there is no proposed alternative.</p>	<p>The proposed project is a joint RDEIR/SDEIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative is considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS, and expected Final EIR/EIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy.</p> <p>The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Chapter 3 of the EIR/EIS for additional information on Proposed Project operations.</p> <p>Please see Master Response 28 and 29 for more information regarding operational scenarios and compliance with ESA respectively. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives are provided in Master Response 4.</p>

DEIRS Ltr#	Cmt#	Comment	Response
			For more information regarding demand management please see Master Response 6.
1611	18	<p>A) The BDCP's proposed objectives, purpose, and need:</p> <p>The alternatives to the project must be determined in light of what the project's goals are. The BDCP serves two purposes: (1) restore and protect ecosystem health to the Delta; and (2) create a reliable water supply within a regulatory framework. BDCP Draft EIR/EIS Chapter 2 Page 1.</p> <p>The BDCP's fundamental purpose is to "make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south-of-Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations." BDCP Draft EIR/EIS Chapter 2, Page 2. Broken down, the alternatives considered must (1) make physical improvements to the State Water Project; (2) restore and protect ecosystem health in the Delta; and (3) restore and protect water quality in the CVP with a stable regulatory framework. BDCP Draft EIR/EIS Chapter 2, Page 2.</p> <p>The BDCP's proposed objectives make no mention of creating new conveyances from the Delta. However, the alternatives assume it is necessary to divert new water from the upper Sacramento River.</p> <p>B) Description of action alternatives:</p> <p>The Draft BDCP includes 15 proposed action alternatives and one CEQA-mandated no action alternative. The 15 action alternatives vary in location, design, conveyance capacity, and the rules that would determine the operation of conveyance facilities. BDCP Draft EIR/EIS Chapter 3, Page 2.</p> <p>The 15 proposed alternatives branched out of four preliminary alternatives. These four preliminary alternatives propose a: (1) through-Delta conveyance with opportunistic Delta operations and potential new storage; (2) through-Delta conveyance with San Joaquin River isolation; (3) dual conveyance: isolated conveyance between the Sacramento River SWP CVP pumping plants and through-Delta conveyance with San Joaquin River isolation; or (4) isolated conveyance between the Sacramento River and SWP and CVP pumping plants. BDCP Draft EIR/EIS Chapter 3, page 6. These four preliminary alternatives that establish the potential range of alternatives, all but one of the proposed 15 projects fall under category 3 or 4 with a conveyance from the Sacramento River. Draft BDCP EIR/EIS 3 - 14-16. These alternatives include plans 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, and 9. BDCP Draft EIR/EIS Chapter 5, Pages 14-16. Alternatives that are separated by letters following the number (e.g. 1A, 1B, 1C) have "only one or a handful of differences." BDCP Draft EIR/EIS Chapter 3, Page 40.</p> <p>1) North and South Delta Intakes:</p> <p>Every proposed alternative other than the no action alternative would build new intakes along the Sacramento River. BDCP Draft EIR/EIS Chapter 3, Pages 14-16. The project identifies 12 sites for these potential intakes, 7 along the Sacramento River's east bank, and 5 along the west bank. BDCP Draft EIR/EIS Chapter 3 page 85. The BDCP allowed for a maximum of 5 intakes for many of the alternatives, and each intake would divert a maximum of 3,000 cfs. BDCP Draft EIR/EIS Chapter 3, Page 85. Alternative 9 is the only</p>	<p>The EIR/EIS includes the results of the impact assessment of the 15 alternatives presented in the Draft EIR/EIS and 3 new subalternatives analyzed in the RDEIR/SDEIS . Four major alignments have been included in the EIR/EIS: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A of the EIR/EIS.</p> <p>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 in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding development of alternatives and screening please see Master Response 4.</p> <p>Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS. Appendix 1B, Water Storage, EIR/EIS, describes the potential for additional water storage and Appendix 1C, Demand Management Measures, EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead Agencies recognize that they are important tools in managing California's water resources. Please see Master Response 7 regarding desalination and Master Response 6 regarding demand management.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>variant, as it would create two 7,500 cfs intake structures at where the Sacramento River meets the Delta Cross Channel and Georgiana Slough. BDCP Draft EIR/EIS Chapter 3, Page 86.</p> <p>Aside from alternative 9, every proposed intake is along the same ~20 mile stretch of the Sacramento River. BDCP Draft EIR/EIS Appendix 3, Figure 2. Some intakes would be canals while others would be tunnels, and some would be on the west bank while others would be on the east bank, but otherwise they are all 3,000 cfs intakes along the same ~20 mile stretch of the same river. BDCP Draft EIR/EIS Chapter 3, Page 87. Moving an intake down a mile does not constitute a material alternative or alteration. The alternative intakes are different versions of the same plan.</p> <p>2) North Delta Capacity:</p> <p>Among the 15 proposed alternatives, 10 of them have a 15,000 cfs north Delta capacity. BDCP Draft EIR/EIS Chapter 3 Pages 14-16. 13 of the 15 projects have a 9,000 cfs or greater north Delta capacity. Id. Only two of the proposed alternatives offer a new conveyance below 9,000 cfs, alternatives 3 and 5. Alternative 3 offers a 6,000 cfs conveyance capacity, which is still over half the capacity of the maximum 15,000 cfs proposals. Alternative 5 offers the lowest cfs capacity of any of the proposed alternatives at 3,000 cfs. BDCP Draft EIR/EIS Chapter 3, Pages 14-16.</p> <p>The BDCP Draft EIR/EIS concedes: "each alternative... would involve some level of construction of conveyance facilities/improvements to the system for diverting water to the existing SWP and CVP south Delta export facilities." BDCP Draft EIR/EIS Chapter 3, Page 40. There is a clear discrepancy here between the BDCP's range of alternatives and those mandated by relevant laws. Ten approaches to diverting the same amount of water out of the same river are not alternative plans; these are different methods to accomplishing the same plan. Also, the BDCP assumes the necessity that every single alternative would require some diversion. There is no proposal that offers a solution for Delta conservation and water management without diversions.</p>	
1611	19	[ATT 1: Bar graph of Number of Alternates by North Delta Diversion Capacity.]	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 comment referencing the attachment or the Final EIR/EIS.
1611	20	<p>Total Conveyance Capacity:</p> <p>The BDCP also considers two types of conveyances. The Dual Conveyance and the Isolated Conveyance. BDCP Draft EIR/EIS Chapter 3, Page 16. The dual conveyance would use the existing south conveyance to supplement the new north conveyance, while the isolated conveyance would rely solely on the new northern conveyance [see BDCP Draft EIR/EIS, Chapter 3, page 16].</p> <p>The Dual Conveyance would keep the existing SWP/CVP facilities at the south Delta to supplement the north Delta diversions. Other than that the northern diversion would serve as the primary diversion [see BDCP Draft EIR/EIS, Chapter 3, page 16]. In other words, every proposed alternative would still have the capacity to pump 15,000 cubic feet per second [cfs] out of the Delta, when combined with the SWP/CVP [see BDCP Draft EIR/EIS, Chapter 3, pages 14-16, Figures 3-9 to 3-18].</p>	<p>The project's proposed dual conveyance facilities would allow water to be moved through the Delta when conditions permit, and allow water to be diverted from the Sacramento River in the northern Delta when conditions in the south Delta do not permit diversions from the existing State Water Project and Central Valley Project facilities. The location of the north Delta diversion facility is less vulnerable to salinity intrusion, a potential impact of sea level rise, or levee failure, in the future. By establishing an alternative diversion point for exports, a great deal of water management flexibility is added. This added flexibility would provide more options for adaptively managing the Delta so that conditions can be optimized to provide the greatest benefits across all Delta water uses and habitat conditions.</p> <p>The Proposed Project proposes to stabilize water supplies, and exports could only increase under certain circumstances in which hydrological conditions result in availability of sufficient water and ecological objectives are fully satisfied. It is projected that water deliveries from the federal and state water projects under the Proposed Project would be about the same to the average annual amount of water that would be diverted under the No Action Alternative (i.e. 2025 conditions without the Proposed Project).</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The Isolated Conveyance does not keep the southern facilities as auxiliary [Id.]. Alternates 6A, 6B, and 6C are the only alternates with an isolated conveyance, and they all convey 15,000 cfs. Either way, every plan would result in a 15,000 cfs conveyance and every plan other than alternate 9 would result in the construction of a new northern conveyance. The only difference in these plans is that some propose pipelines, some canals, and others a combination of the two [see BDCP Draft EIR/EIS, Chapter 3, pages 46-79].</p>	<p>As described in Chapter 3 of the EIR/EIS, Alternative 9 also would include construction of new facilities in the north and south Delta, including facilities near the confluence of the Mokelumne River and Sacramento River, intakes on the Sacramento River near Delta Cross Channel gates and Georgiana Slough, and barriers and siphons in the south Delta. These facilities also would be designed for 15,000 cfs total export capacity.</p>
1611	21	<p>Conservation/Stressors:</p> <p>Every action alternative uses the same BDCP Steering Committee Proposed Project that the BDCP uses. BDCP Draft EIR/EIS Chapter 3, Page 14-19. The only alternatives that have some degree of variation are alternatives 5, 7, and 9.</p> <p>Alternative 5 is similar in every conservation aspect other than it would restore 25,000 rather than 65,000 acres of tidal habitat. BDCP Draft EIR/EIS Chapter 3, Page 71. Alternative 7 only differs in that 40 (rather than 20) miles of channel margin habitat would be enhanced, and 20,000 (rather than 10,000) acres of seasonally inundated floodplain would be restored. BDCP Draft EIR/EIS, Chapter 3, Page 77. Finally, alternative 9 would only differ in locations for restoration or enhancement activities due to the different conveyance method of the project. BDCP Draft EIR/EIS Chapter 3, Page 82.</p> <p>50 Year Incidental Take Permit:</p> <p>Every plan other than the mandated no action alternative involves the issuance of a 50-year Incidental Take Permit and a NCCP permit. BDCP Draft EIR/EIS Chapter 3, Page 2. Not a single proposed plan attempts to mitigate damages through a plan that would not require the issuance of a ITP, let alone a 50 year ITP, the maximum. See BPCP Draft EIR/EIS Chapter 3, Pages 14-16.</p>	<p>The originally proposed habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as part of the Proposed Project, except to the extent required to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b). However, restoration actions that are independent of Proposed Project will continue to be pursued as part of existing projects and programs. Examples of these include habitat restoration addressed in the 2008 and 2009 USFWS and NMFS biological opinions (e.g., Yolo Bypass improvements and habitat enhancements, 8,000 acres of tidal habitat restoration), (2) California EcoRestore, and (3) the 2014 California Water Action Plan.</p> <p>The alternatives included in the Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding development of alternatives and screening please see Master Response 4.</p>
1611	22	<p>The proposed alternatives are inadequate under CEQA.</p> <p>The Draft BDCP EIR/EIS range of alternatives violates CEQA. CEQA requires that projects discuss alternatives or feasible mitigation measures available that "substantially lessen the significant environmental effects of such projects." Cal. Pub. Res. Code [Section] 21002 (West 2014)(emphasis added). The purpose of an EIR is to "identify alternatives to the project, and to indicate the manner in which those significant effects can be avoided or mitigated." Cal. Pub. Res. Code [Section] 21002.1(a). Here, the EIR has failed to identify alternatives to the project, and failed provide a manner in which the significant effects could be avoided or mitigated.</p> <p>Also, the EIR "need not consider every conceivable alternative to a project," but it must "consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation." 14 Cal. Code Regs. [Section] 15126.6(a) (West 2014). The discussion of alternatives must focus on "alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project." 4 Cal. Code Regs. [Section] 15126.6(b) (West 2014). This is necessary even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. Id.</p> <p>Thus, CEQA has two general requirements for alternatives: (1) The alternatives must substantially lessen the environmental effects of the project in light of its goals and</p>	<p>As CEQA Lead Agency, the California Department of Water Resources disagrees that the proposed alternatives are inadequate. The Public Draft EIR/EIS evaluated 15 action alternatives and the RDEIR/SDEIS evaluated an additional 3 action alternatives.</p> <p>Please see Appendix 3A, Identification of Water Conveyance Alternatives, EIR/EIS, and Master Response 4 "Alternatives" regarding selection of the alternatives analyzed in the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		objectives; and (2) the range of potential alternatives must foster informed decision-making.	
1611	23	<p>The proposed alternatives do not lessen significant environmental effects.</p> <p>The chief goal of alternatives and mitigation measures under CEQA is to avoid environmental harm. Laurel Heights Improvement Ass'n. v. U.C. Regents, 47 Cal. 3d 376, 403 (1988). An EIR alternative should "feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." 14 Cal. Code Regs. [Section] 15126.6(c) (West 2014). Alternatives considered under CEQA must: "(1) offer substantial environmental advantages over the project proposal; and (2) "[be] feasibly accomplished in a successful manner" considering the economic, environmental, social and technological factors involved." Citizens of Goleta Valley v. Bd. of Supervisors of Santa Barbara Cnty., 52 Cal.3d 553, 566 (1990).</p> <p>Here, no alternative provides any substantial environmental advantages over the project proposal and the BDCP Draft EIR/EIS inherently assumes that there is no feasible way to accomplish the goals of the project other than creating a north Delta conveyance.</p> <p>Every alternative proposed would result in a north Delta diversion, but no alternative makes an effort to substantially lessen one or more of the significant effects. This is evident through the EIR alternatives' identical total diversion capacity, use of similar intakes/intake locations, use of the exact same Conservation Measure for every proposed alternative, and the issuance of 50 year Incidental Take Permits for every alternative.</p> <p>First, the proposed alternatives all retain a 15,000 cfs total diversion capacity. See Draft BDCP EIR/EIS, 3-14. The alternatives may vary in the amount of water they take from the north Delta, but they all retain the capacity to pull up to 15,000 cfs, so no effort has been made to substantially lessen the environmental effects cause by pumping water from the delta. No matter the alternative chosen, the total diversion capacity remains the same.</p> <p>Second, the Draft BDCP EIR/EIS alternatives fail to consider smaller intakes, or alternatives that do not require the building of new intakes. Other than alternative 9, the intakes are all the same size, and relatively in the same location, so no environmental harm is mitigated in regards to the intakes either.</p> <p>Finally, every alternative uses essentially the same Conservation Measures and would attain a 50 year Incidental Take Permit. The alternatives are intended to lessen significant environmental effects of the project, yet none of them are able to reduce the environmental harm done to a point where the take permit could be reduced or eliminated. A possible cause of this is that every single alternative uses almost the exact same conservation method, so no environmental harm would be mitigated from implementing one alternative over another.</p>	<p>Alternatives 2D, 4A, and 5A have been developed in response to public and agency input and in response to reduce some of the significant impacts identified in the Draft EIR/EIS for implementation of Alternatives 1 through 9 as compared to Existing Conditions.</p> <p>The alternatives included in the Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the Project Objectives and Purpose and Need, as described in Chapter 2 of the EIR/EIS. For more information regarding purpose and need please see Master Response 3. For more information regarding development of alternatives and screening please see Master Response 4. For more information regarding Environmental Commitments please see Appendix 3B of the FEIR/EIS. For more information regarding significant and unavoidable impacts please see Master Response 10.</p> <p>The capacity of the north Delta intakes range from 3,000 to 15,000 cfs. The total export capacity at the south Delta pumping plants are not modified under any of the alternatives, and remains 15,000 cfs as under the Existing Conditions. As described in Chapter 3.</p> <p>The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Section 4.1.2, Description of Alternative 4A, RDEIR/SDEIS for additional information on Proposed Project operations. Please see Master Response 28 and 5 for more information regarding operational scenarios and compliance with ESA respectively.</p>
1611	24	<p>The Draft EIR fails to provide a reasonable range of alternatives.</p> <p>The Draft BDCP EIR/EIS fails to provide the required "reasonable range of alternatives to the project or to its location." 14 Cal. Code Regs. [Section] 15126.6(a) (West 2014). The adequacy of the range of alternatives is governed by the rule of reason. 14 Cal. Code Regs. [Section] 15126.6(f) (West 2014). The rule of reason states that the EIR must set forth those alternatives necessary to permit a well-reasoned choice. Id. The two primary factors that must be considered in applying the rule of reason are the feasibility of the alternatives and</p>	<p>The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the Project Objectives and Purpose and Need, as described in Chapter 2 of the EIR/EIS. For more information regarding purpose and need please see Master Response 3. For more information regarding development of alternatives and screening please see Master Response 4. The specific proposals that were considered but not evaluated in detail by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS, including the NRDC Portfolio-Based Proposal, Congressman Garamendi's</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>alternate locations. Id.</p> <p>A feasible alternative must consider suitability, economic viability, availability of infrastructure, general plan consistency, other plans of regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have control of the alternative site. 14 C.C.R. [Section] 15126.6(f)(1) (West 2014).</p> <p>Alternative locations must also be considered in determining whether alternatives provide a reasoned choice. Locations that would avoid or substantially lessen any of the significant effect of the project need be considered for inclusion in the EIR. 14 C.C.R. [Section] 15126.6(f)(2)(A) (West 2014).</p> <p>The BDCP Draft EIR failed to provide a reasonable range of alternatives through its 15 quasi-alternatives that are far too similar in their north Delta diversion capacity, total diversion capacity, intake locations, and conservation measures, to provide a well-reasoned choice.</p>	<p>Water Plan, and other similar concepts that would require actions that are beyond the scope of the proposed project.</p> <p>Chapter 3 of the EIR/EIS describes several locations and sizes for intakes, conveyance alignments, and forebays. Analyses of the initial range of alternative locations for intakes are summarized in Appendix 3F of the EIR/EIS.</p>
1611	25	<p>North Delta/Total Diversion Capacity:</p> <p>The alternatives proposed in the Draft EIR/EIS all assume the necessity of a new diversion in the north Delta and most would still use the existing southern conveyance as well. <i>Supra</i>. This poses multiple problems in terms of CEQA: (1) the alternative north Delta conveyances and total conveyance capacity of the alternatives do not provide any substantial environmental advantages over the BDCP; and (2) the similarity in the alternative diversions do not provide a reasonable range of alternatives to permit a well reasoned choice.</p> <p>The problem with the lack of environmental advantages of diversion capacity is two-pronged. When the north Delta diversions are viewed in conjunction with the total diversion capacity of each proposed alternative, no substantial environmental impacts are avoided, no matter the choice.</p> <p>The Draft BDCP EIR/EIS alternatives offer little to no difference in the amount of water the project would pull out of the Delta when the north Delta conveyance is observed in conjunction with the existing south Delta conveyance. The Draft BDCP EIR provides the diversion capacity for the north conveyances.</p> <p>Even if the alternatives' diversion capacities are taken at face value, it still reveals that two-thirds of the proposed alternatives would have a 15,000 cfs diversion capacity in the north Delta, no different from the BDCP. However, the five other alternatives that seem to offer a smaller diversion from the delta are not much different.</p> <p>All the dual conveyance proposals would supplement the north Delta diversions with the existing south Delta conveyance, which means that regardless of which action alternative is observed, every single out would have the capacity to divert 15,000 cfs from the delta.</p> <p>There is no alternative other than the mandated no action alternative that would provide a solution for water management and restoring the Delta without creating a new conveyance. The BDCP EIR implicitly assumes the necessity of new conveyances, and assumes it necessary to retain the capacity to divert 15,000 cfs from the delta no matter the alternative.</p> <p>Every alternative proposed with a diversion capacity below 15,000 cfs is a dual conveyance</p>	<p>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 in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding purpose and need please see Master Response 3. For more information regarding development of alternatives and screening please see Master Response 4. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Over the long-term, the Proposed Project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. Overall, the average annual Delta exports are less in Alternatives 2, 4 (H2, H3, H4), and 5 through 9 than under Existing Conditions, as shown in Chapter 5 and Appendix 5A, Section C, of the EIR/EIS.</p> <p>It should be noted that the north Delta intake tunnels would not be fully utilized except for several months in wet years, as shown in Appendix 5A, Section C. However, it is important to have the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years.</p> <p>The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Chapter 3 of the EIR/EIS and Master Response 28 for additional information on Proposed Project operations. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>alternative. These plans would all still use the existing south conveyance as well as the new north conveyance. Supra. This means that while they may be taking less water from the north Delta, they all have the ability to export 15,000 cfs from the delta. Delta Independent Science Board Review of the Draft BDCP EIR/EIS and Draft BDCP Page B-4 (May 15, 2014). The proposed action alternatives are a bait and switch. On the surface, these plans seem to offer a decrease in the amount of water they convey, but that is because the alternatives discussion only provides half the picture through discussing only the north Delta conveyances.</p> <p>This similarity in the conveyances of the alternatives fails to give any substantial environmental advantages, since the same water will be pulled out of the delta, regardless of the plan chosen. There is also no reasonable range of alternatives. Every alternative proposed has the capacity to divert the same amount of water, so there was never any real opportunity to consider a substantively different plan. The conveyance capacity of the alternatives is inadequate under CEQA requirements.</p>	
1611	26	[ATT 2: Bar graph of Total Diversion Capacity of Alternatives. (Alternatives 1ABC, 2ABC, and 6ABC have been consolidated under their respective numbers.)]	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 comment referencing the attachment or the Final EIR/EIS.
1611	27	<p>Intakes/locations:</p> <p>The BDCP Draft EIR also fails to consider alternatives regarding intakes. None of the proposed alternatives would lessen significant environmental effect nor would they offer a reasonable range of alternatives due to their limited scope. Other than alternative 9, every proposed north Delta intake would be a 3,000 cfs intake regardless of the alternative or the location of the intake. Supra. These intakes would all also be along the same 20-mile stretch of the Sacramento River.</p> <p>The proposed alternative intakes do not provide any level of environmental advantage. The primary purpose of an alternative under CEQA is to mitigate environmental harm. Here, every intake would be a 3,000 cfs pump along the same 20 mile stretch of the Sacramento River. If the goal of the alternatives is to mitigate harm, why does every single one plan on building the same type of intakes along the same stretch of the Sacramento River? The only reasoning that would justify using this narrow scope of alternatives would be if nothing else was feasible, but the BDCP Draft EIR/EIS and the CDWR's Conceptual Engineering Report (CER) both provide feasible solutions that are not mentioned in the alternatives. The CER even listed different type of intakes that the BDCP could use, but none were even mentioned in the plan. BDCP CER 2 - 1-19.</p> <p>Also, no alternative other than alternative 9 considers any modification to the existing modification to the existing pumps in the south Delta. See, BDCP Draft EIR/EIS Chapter 3 Page 79 (showing plans for changes to existing SWP and CVP, but no other alternative does so). The lack of any modification of this sort is especially suspicious in light of the Conceptual Engineering Report (CER) that was prepared by the CDWR. These feasible modifications would help mitigate the existing damage done by the CVP and SWP, only one of the proposed alternatives even considers this.</p>	<p>Please see Appendix 3F, Intake Location Analysis, of the EIR/EIS, regarding the process for selecting intake locations. As shown in Figure 3F-1, and described in the appendix, several sites north of the Sacramento Regional Wastewater Outfall were considered in earlier stages of review (Locations A, B, and C). Locations upstream of the town of Freeport were eliminated from consideration due to public scoping comments received in March 2009 citing construction impacts in an overly constrained conveyance corridor, historic building conflicts, and the precedent set by the Freeport Regional Water Project EIR, indicating that intakes in the Pocket area neighborhood would produce significant impacts. However, the Fish Facilities Technical Team also recommended that the furthest upstream intake be located downstream of where complete mixing is reported to occur with effluent discharge from the Sacramento Regional Wastewater Treatment Facility. For this reason, potential intake locations upstream of Scribner Bend were also eliminated.</p> <p>The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. In response to public input, several new alternatives have been studied and a new Preferred Alternative (4A) identified.</p> <p>Five alternatives and 3 additional subalternatives were analyzed in the Draft EIR/S and the RDEIR/SDEIS respectively. Four major alignments have been included in the EIR/EIS: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives are provided in Master Response 4. None of the alternatives, including Alternative 9, modify the existing Banks Pumping Plant and Jones Pumping Plant as compared to Existing Conditions.</p> <p>The use of 3,000 cfs intakes in most of the alternatives was determined to minimize the number of intakes in the north Delta while meeting the needs of the project objectives and purpose and need.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	28	<p>One of the criteria used to eliminate an alternative from detailed consideration in an EIR is "inability to avoid significant environmental impacts." 14 Cal. Code Regs. [Section] 15126.6(c) (West 2014). Through this criterion alone, every proposed alternative should be unreasonable under this analysis since they all use essentially the same conservation plan, and the same plan would result in no reduction of environmental damage over the BDCP.</p> <p>The use of essentially the same conservation plan and the same 50-year Incidental Take Permit no matter the selected alternative implicitly concedes that there is not enough of a difference between the alternatives to permit a well-reasoned choice.</p>	<p>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 in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding purpose and need please see Master Response 3. For more information regarding development of alternatives and screening please see Master Response 4.</p> <p>As described in the EIR/EIS, the extent of significant adverse impacts under each of the alternatives as compared to the Existing Conditions and the No Action Alternative vary by alternatives. It should also be noted that the incremental difference under the alternatives as compared to the Existing Conditions also includes changes associated with climate change, sea level rise, and population growth and would occur with or without the Project.</p>
1611	29	<p>The proposed alternatives are inadequate under NEPA.</p> <p>The BDCP Draft EIR/EIS fails analysis under NEPA as well as CEQA. NEPA requires that an EIS discuss alternatives to the project. 42 U.S.C. [Section] 4332 (C)(iii) (West 2014). Federal agencies must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. 4332(E) (West 2014). The alternatives are considered the "heart of the environmental impact statement." 40 C.F.R. [Section] 1502.14 (West 2014). The alternatives under NEPA must (alongside other requirements): (1) rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated; (2) "devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits"; and (3) "include appropriate mitigation measures not already included in the proposed action or alternatives"; 40 C.F.R. [Section] 1502.14 (West 2014). The BDCP Draft EIR/EIS has failed to meet these listed requirements.</p> <p>In considering the range of alternatives required under NEPA, the courts apply the rule of reason. The rule of reason requires that the alternatives considered permit a reasoned choice as far as the environmental aspects of the project. <i>Natural Res. Def. Council, Inc. v. Morton</i>, 458 F.2d 827 (D.C. Cir. 1972). An EIS "need not consider an infinite range of alternatives, only reasonable or feasible ones." <i>City of Carmel-By-The-Sea v. U.S. Dept. of Transp.</i>, 123 F.3d 1142, 1155 (9th Cir. 1997). The alternatives must derive from the project's purpose and objectives. <i>Id.</i> Thus, the primary consideration is whether the alternatives permit a well-reasoned choice in light of the project's purpose and objectives.</p> <p>The fact that all these alternatives are in reality the same project when observed as a whole raise concerns regarding NEPA on multiple grounds. First, the BDCP has not performed its duty to "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated". 40 C.F.R. [Section] 1502.14 (a) (West 2014). Second, the BDCP has not included "appropriate mitigation measures not already included in the proposed action or alternatives." <i>Id.</i> Third, because the alternatives are the same plan in different outfits, the BDCP alternatives fail to permit a well-reasoned choice in light of the project's purpose and objectives.</p>	<p>A response to the alternatives analysis is provided above.</p> <p>Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives are provided in Master Response 4.</p>
1611	30	<p>The BDCP does not perform its duty to rigorously explore and objectively evaluate all reasonable alternatives.</p>	<p>Appendix 3A of the EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS and why various proposals were not analyzed in detail in the EIR/EIS, including the NRDC Portfolio-Based Proposal, Congressman Garamendi's Water Plan, and other similar concepts that would</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The EIS required under NEPA must "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. [Section] 1502.14(a) (West 2014). The BDCP alternatives are so narrowly tailored that they inherently assume that there is no reasonable and feasible way to carry out the project's objectives without creating new conveyances.</p>	<p>require actions that are beyond the scope of the proposed project. For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Appendix 1B of the EIR/EIS describes the potential for additional water storage. Appendix 1C of the EIR/EIS describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead Agencies recognize that they are important tools in managing California's water resources. For more information regarding demand management please see Master Response 6.</p>
1611	31	<p>The BDCP has not included appropriate mitigation measures not already included in the proposed action or alternatives.</p> <p>Every BDCP Draft EIR/EIS alternative retains a 15,000 cfs diversion capacity, a 50-year incidental take permit, and uses essentially the same conservation measures as the BDCP. The alternatives serve the purpose of to mitigate environmental damage but no damage has been mitigated. No matter the alternative, water diverted from the delta, the potential harm to endangered species, and the conservation measures remain essentially identical.</p>	<p>In response to public comments on the 2013 Public Draft EIR/EIS. The Department of Water Resources and the Bureau of Reclamation published a RDEIR/SDEIS in 2015 which included 3 additional alternatives that identified a new approach for ESA/CESA compliance. The total capacities of the north of Delta intakes range from 3,000 to 15,000 cfs. Use of the south of Delta intakes also ranges from less than 15,000 cfs (as under Existing Conditions and No Action Alternative) up to 15,000 cfs, as described in Chapter 3 of the EIR/EIS.</p> <p>Under CEQA, feasible mitigation measures are required that could substantially lessen or minimize significant impacts. Mitigation measures are not required for effects which are not determined to be significant. For significant environmental effects that cannot be avoided, the EIR/EIS describes these in individual resource areas. Under CEQA, an agency may not approve a project with significant environmental impacts if there are feasible mitigation measures available which would substantially lessen those impacts. (Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15092, subd. (b); see Santa Clarita Organization for Planning the Environment v. City of Santa Clarita (2011) 197 Cal.App.4th 1042, 1052-1053.) Thus, for every significant impact identified in an EIR, the agency must adopt all feasible mitigation measures that would substantially reduce the impact. Even with all feasible mitigation, however, the level of some impacts may still be higher than the threshold of significance identified in the EIR. For more information regarding Environmental Commitments please see Appendix 3B of the FEIR/EIS.</p> <p>Please also Master Response 4 regarding the development of alternatives for the EIR/EIS, which includes a description of the process the Lead Agencies followed to develop and screen alternatives.</p>
1611	32	<p>The BDCP alternatives fail to permit a well-reasoned choice in light of the project's purpose and objectives because the alternatives are the same plan in different outfits.</p> <p>There are too many stark similarities between the alternatives proposed by the BDCP Draft EIR/EIS to the BDCP and to each other for the alternatives to permit a well-reasoned choice. If the BDCP Draft EIR/EIS alternatives are the "heart of the EIS," then the alternatives are inadequate. The fact that they all create a new conveyance, all retain a 15,000 cfs conveyance capacity, all require a 50-year Incidental Take Permit, all but one create 3,000 cfs intakes along the same stretch of the Sacramento River, all culminate to show that there are no alternatives, there is only the same project dressed up in different outfits. These quasi-alternatives provide no choice in alternative projects, only different ways to carry out the same one.</p>	<p>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 in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding development of alternatives and screening please see Master Response 4. The total capacities of the north of Delta intakes range from 3,000 to 15,000 cfs. Use of the south of Delta intakes also ranges from less than 15,000 cfs (as under Existing Conditions and No Action Alternative) up to 15,000 cfs, as described in Chapter 3 of the EIR/EIS.</p>
1611	33	<p>The BDCP and the accompanying Draft EIR/EIS are plagued with improper procedure and are contrary to key environmental statutes, including CEQA, NEPA, and ESA (Endangered Species Act). This comment addresses several of the critical procedural deficiencies under CEQA and NEPA, as well as deficiencies in [Section]10 of the ESA. The errors committed by</p>	<p>Discussion of the main environmental attributes affecting individual covered species is provided in Chapters 11 and 12 of the EIR/EIS. Effects of the proposed water conveyance and associated restoration activities on general resource areas are discussed in Chapters 5 through 28 of the EIR/EIS. Where impacts are determined to be significant, mitigation measures have been included and an analysis of the impacts with the mitigation</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the BDCP in this laborious, drawn-out process necessitates, at the very least, redrafting the EIR/EIS. Several of the issues, including the structure and presentation of the Habitat Conservation Plan (HCP) mandate that the project not move beyond the planning stages.</p> <p>CEQA and NEPA require that any project with potential environmental impacts prepare a document that thoroughly analyzes the anticipated impact. While there is some difference in how the state and federal statutes then approach what actions should be taken, the intent and practicality of the final document is essentially the same: to sufficiently present and analyze the environmental impacts so that decision makers and the general public are well informed. (Laurel Heights Improvement Ass'n. v. Regents of Univ. of Cal., 47 Cal. 3d 376, 405 (1988)) (for the CEQA requirement); (Or. Natural Desert Assn. v. Bureau of Land Mgmt., 625 F.3d 1092, 1122 (9th Cir. 2010)) (for the NEPA requirement). In order to meet the broad intent and detailed requirements of these acts, a series of guidelines have established the procedure and basic content of the EIR/EIS. Further, case law has established the boundaries of what is considered a sufficient analysis under the guidelines. Particularly relevant to the deficiencies of the BDCP's Draft EIR/EIS are requirements regarding the sufficiency of information within the document. (14 Cal. Code Regs. [Section]15151) (CEQA sufficiently informational); (Dry Creek Citizens Coal. V. Cnty. Of Tulare, 70 Cal. App. 4th 20, 26 (1999)) (interpreting NEPA to determine that full disclosure qualifies as sufficiently informational). In tandem with the sufficiently informational requirement, the draft EIR/EIS must take a "hard look" at the environmental impact under NEPA. (Ctr. For Biological Diversity v. U.S. Dept. of the Interior, 623 F.3d 633, 642 (9th Cir. 2010)) (for the NEPA requirement). The document can, of course, only do this if it is sufficiently informational. Under both statutory requirements there are serious breaches of NEPA and CEQA guidelines. In short, the Draft EIR/EIS does not meet the standards of a sufficiently informational document and must be redrafted.</p>	<p>measures. The description of the Project alternatives also include environmental commitments that will be implemented to avoid and/or offset these effects, where possible, as summarized in Appendix 3B.</p> <p>The Cumulative Impact Analyses that was written for the 2013 Public Draft EIR/EIS has been revised in the RDEIR/SDEIS and Final EIR/EIS to include the impacts associated with the new proposed project alternatives and also updates past analyses. Environmental Commitments are to minimize effects to the Delta and its inhabitants and mitigate for loss of habitat to the ecosystem and its species.</p>
1611	34	<p>The BDCP, as a whole project, is also riddled with fatal issues under the ESA. As presented in the Plan is an infrastructure project masquerading as a Habitat Conservation Plan (HCP) in order to obtain the required Incidental Take Permits under [Section]10 of the ESA. There are significant flaws with the process the BDCP uses to present the plan to the Federal issuing agencies. Consequently there are also significant flaws with the steps that are required to validate the BDCP as a HCP. These flaws bring serious questions of the intentions and utility of the BDCP and consequently, the underlying legality of the entire project.</p>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. For detailed responses on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.</p>
1611	35	<p>The deficiency in the articulation of project objectives &amp; language is contrary to CEQA requirements.</p> <p>CEQA requires that any proposed project state the project goals in the Environmental Impact Report (EIR). (CEQA Guidelines [Section]15124(b)). This statement should be "clearly written" and "help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and... aid the decision makers in preparing findings or a statement of overriding considerations." (Id.). The statement of objectives must also contain the fundamental, "underlying purpose of the project." (Id.). The inclusion and sufficiency of these elements are essential in determining the overall validity of the EIR. Put simply, the Draft EIR for the BDCP does not fulfill even these basic requirements.</p> <p>The BDCP vainly attempts to conform to CEQA requirements through form alone. It states that the fundamental project objectives are to "make physical and operational improvements to the SWP [State Water Project] system in the Delta necessary to restore</p>	<p>The EIR/EIS was prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This Final EIR/EIS is intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy.</p> <p>The range of alternatives presented in the Final EIR/EIS was developed in accordance with the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. For more information regarding purpose and need of the proposed project please see Master Response 3. For more information regarding development of alternatives please see Master Response 4.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		and protect ecosystem health, water supplies of the SWP and the CVP [Central Valley Project] south-of-Delta, and water quality in a stable regulatory framework, consistent with statutory and contractual obligations." (EIR/EIS, 2-2). Laid out in this single sentence are several very distinct and very different goals. These distinct goals break down into either increasing water exports to the Central Valley or restoring the already decimated Delta ecosystem.	
1611	36	The language of the Draft EIR echoes the goals articulated by the Sacramento-San Joaquin Delta Reform Act of 2009 "to provide for the sustainable management of the... [Delta] ecosystem, to provide for a more reliable water supply for the state, to protect and enhance the quality of water supply from the Delta, and to establish a governance structure...." (Cal. Water Code [Section]85001(c) (West 2014)). The major deviation between the two sets of fundamental objectives is the description of securing the water supply. The BDCP focuses on the water supply for south-of-Delta regions, whilst the Delta Reform Act is meant to assure water security for the entirety of California, including the watersheds that feed the Delta. This tension between the statutory objectives and the BDCP's CEQA objectives is indicative of the inadequacy present in the Draft EIR.	<p>The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures). The proposed project would not increase the amount of water to which SWP and CVP hold water rights for use allowed under their contracts and permits and approvals for refuge water supplies or other environmental purposes.</p> <p>For more information regarding purpose and need please see Master Response 3. For more information regarding BDCP compliance with the Delta Reform Act please see Appendix 3I of the EIR/EIS and Master Response 31.</p>
1611	37	<p>The EIR breaks down the overall project objectives into several programmatic objectives. These objectives include obtaining "incidental take permits for covered species," "improv[ing] the Delta ecosystem," and "restor[ing] and protect[ing] the ability of SWP and CVP to deliver up to full contract amounts." (EIR/EIS, 2-2 -- 2-3). The BDCP then addresses several specific conveyance issues on the programmatic level, including improving safety and infrastructure in light of seismic and climate change threats; and at the very bottom of the list, "identify[ing] new operations and a new configuration for conveyance of water entering the Delta from the Sacramento River watershed to the existing SWP and CVP pumping plants in the southern Delta by considering conveyance options in the north Delta that can reliably deliver water." (EIR/EIS, 2-3 -- 2-4).</p> <p>At the programmatic level, the BDCP proponents have essentially glossed over any concrete environmental goals for the project and focused exclusively on water conveyances and ensuring there is money to support the massive investment in the infrastructure required to support increased water transfers. Of the acknowledged programmatic goals, two deal with conservationist measures. One of these, the processing of Incidental Take Permits, ensures that any other activity conducted under the auspices of conservation will not be subject to prosecution under the Endangered Species Act, protecting the plan proponents in the likely event that endangered or threatened species are irreversibly harmed. The other programmatic conservation goal is as broad as the overall project goal regarding conservationist measures. The wording of the fundamental project goal and programmatic goal is essentially the same. There are no specific elements enunciated or programmatic actions even remotely developed in this introductory statement that detail how the BDCP plans to "improve the Delta ecosystem." This format is incompatible with the CEQA guidelines for outlining the project goals and the statute's overall intent to provide stringent environmental protection. (Mountain Lion Found. v. Fish and Game Comm'n, 16 Cal. 4th 105, 112 (1997)) (agencies must interpret the statute to award the fullest environmental</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p> <p>As a plan prepared to meet the standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. Please refer to Master Response 3 for the Purpose and Need and Master Response 28 for a discussion of the proposed project's Operational Criteria. The Proposed Project was developed to improve Delta habitat and SWP/CVP water supply reliability. As described in Chapter 5 of the EIR/EIS, the action alternatives would increase flexibility for SWP and CVP operations while reducing adverse impacts to aquatic resources. For example, the action alternatives would result in more water exported in wetter years and less water exported in drier water years, as shown in Appendix 5A, Section C, of the Final EIR/EIS.</p> <p>For more information regarding purpose and need of the proposed project please see Master Response 3. For more information regarding project and program level analysis please see Master Response 2.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		protection when developing goals).	
1611	38	<p>The Draft EIR's statement of objectives is neither clearly written nor useful in developing a range of alternatives. It does not meet either of the primary, statutory goals that a statement of objectives must fulfill (providing information for policy makers and those who did not participate in the process to make a good decision). The statement is obfuscation in plain words, a statement of misinformation that eviscerates the concept of conservation in the same utterance that it sets ecosystem protection as a primary goal. The reason behind this is simple: where the plan delves into the specifics of water conveyances and infrastructure, it keeps the conservation methods intentionally broad, thereby absolving itself of any duty to discuss concrete conservationist measures. The plan attempts to follow CEQA guidelines and the requirements of the 2009 Delta Reform Act, but only does so solely through lip service; instead favoring the interests of water-hungry plan proponents. This structure artificially limits the EIR to considering ONLY conveyance measures and alternatives. In refusing to adequately address conservation goals on the same programmatic level as the conveyance goals in the statement of objectives, the BDCP proponents have violated CEQA guidelines. The project's underlying and specific goals have been artificially constructed. As an artificial construction, the EIR fails basic CEQA requirements and cannot, under any circumstance, be considered sufficiently informational. At the very least, the statement of objectives must be redrafted to include an outline of specific conservation methods or desired outcomes to fully inform policy makers and the public of the basis for the development of the BDCP.</p>	<p>The proposed project includes habitat restoration necessary to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b) unlike the BDCP alternatives that provide for larger scale restoration.</p> <p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA in response to the project objectives and purpose and need, as described in Chapter 2 of the EIR/EIS. The specific proposals that were considered but not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. For more information regarding project and program level analysis please see Master Response 2.</p>
1611	39	<p>The deficiency with the project objectives &amp; language is contrary to NEPA requirements</p> <p>The purpose statement of an Environmental Impact Statement (EIS) must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." (40 C.F.R. [Section]1502.13 (2014)). This regulation allows the preparing agencies a significant amount of leeway in defining a project and expressing the underlying goals. The courts have routinely upheld the broad nature of the regulation; but the BDCP still fails to conform to even this basic statutory requirements.</p> <p>The Draft EIR/EIS is a joint document, designed to fulfill both CEQA and NEPA requirements. Immediately following the CEQA objectives and purpose statement, the BDCP lists objectives and needs in an effort to satisfy the NEPA regulations. In the purpose statement, the document reiterates the attempts of the Plan to provide for the co-equal goals established in the Sacramento-San Joaquin Delta Reform Act of 2009 by "providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." (EIR/EIS, 2-5) (This seemingly contradicts the CEQA purpose of assuring only south-of-Delta water supplies). The purpose statement breaks down three primary goals of the BDCP: dealing with applications for ITPs, "improv[ing] the Delta ecosystem," and allowing the SWP and CVP to deliver up to full contract amounts for water deliveries. (EIR/EIS, 2-4).</p> <p>The Draft EIS then enunciates the underlying purpose and underlying need in consecutive sections, with further subsections relating to specific needs the Plan proponents have identified in the Delta, including: Delta Ecosystem Health and Productivity, Water Supply Reliability, and Delta Hydrology and Water Quality ([Section]2.4; [Section]2.5; 2-5.1-2-5.3). (EIR/EIS, 2-4 -- 2-7). These sections divulge vague, summary descriptions of the issues facing the Delta. These descriptions include a primarily pessimistic look at the declining ecosystem</p>	<p>The background information considered by the Lead Agencies in preparation of the project objectives and purpose and need statements are presented in Chapter 1 of the EIR/EIS. For more information regarding purpose and need of the proposed project please see Master Response 3.</p> <p>For more information regarding the proposed project's compliance with the California Delta Reform Act please see Master Response 31.</p> <p>With regards to the comment related to another recirculation of the EIR/EIS, please review Master Response 46.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>health, an emphasis on the water disparity that plagues California, and brief mentions of climate change and other challenges to a stable Delta hydrology. (EIR/EIS, Ch. 2, 2-4 -- 2-7). Essentially, these need sections identify the severe issues facing the Delta, without any acknowledgement of the complex interplay and competing interests also present.</p> <p>When evaluating project goal and need statements under NEPA, there are minimal guiding regulations; essentially requiring a brief description of the underlying purpose of the project and the alternatives presented in the EIS. (40 C.F.R. [Section]1502.13 (2014)). In addition to the proscribed guidelines, there is also a significant amount of case law that guides how a project should be defined, including the description of a project's purpose AND need. The central element of an EIS is a good faith and "objectively hard look" at the potential environmental impact of any proposed project. (City of Sausalito v. O'Neil, 386 F.3d 1186, 1207 (9th Cir. 2004)). In order for this requirement to be met, the Draft BDCP EIS must contain sufficient information, including a valid, concise, and informative purpose and need statement. Id.</p> <p>The purpose statement contained in the EIS seems to interpret the brevity requirement in favor of vagueness. This vagueness leads to the same issue that plagues the Project under CEQA regulations: artificially narrow construction of project goals. An EIS cannot define a project with artificially narrow goals. (Jones v. Regents of Univ. of Cal., 183 Cal. App. 4th 818, 826-27 (2010)). Overly broad or possibly contradictory project goals are not acceptable because they preclude meaningful disclosure of environmental impacts. (Env't'l Law &amp; Policy Ctr. v. U.S. Nuclear Regulatory Comm'n, 470 F.3d 676 (7th Cir. 2006)); (see also Simmons v. U.S. Army Corps of Eng'rs 120 F.3d 664 (7th Cir. 1997)).</p> <p>The BDCP falls into the category vehemently derided by the courts. The co-equal goals offer an overly broad definition that has allowed for the manipulation of alternatives to focus solely on water conveyance. The subsequent purpose and need statements further emphasize a single goal (water conveyances) instead of the established coequal goals. In doing so, the EIS issued for the BDCP violates the Congressional intent behind NEPA. In constructing the project definitions to not award equal weight to the established co-equal goals, the EIS has violated NEPA procedural requirements. Focusing almost solely on conveyance and water security issues, at the expense of the already identified conservationist goals fails the sufficiently informational requirement. As such the document cannot be considered valid and cannot be adopted without redrafting and recirculation of a new Draft BDCP Plan and a new Draft EIR/EIS.</p>	
1611	40	<p>The Draft EIR/EIS does not take a sufficiently hard look at the plight of the delta smelt.</p> <p>NEPA and CEQA both require the EIR/EIS to be sufficiently informational. (Cal. Water Code [Section]15121(a); 40 C.F.R. [Section]1502.1). In addition to this requirement, the EIR/EIS must also take a "hard look" at the environmental impacts of any proposed project. (Cal. Water Code [Section]15121(a)) ("inform... of the significant environmental effect of a project [and] identify possible ways to minimize the significant effects..."); (40 C.F.R. [Section]1502.1 ("Statements shall be concise, clear, and to the point, and shall be supported by evidence...")). (See also Cal. Water Code [Section]15126.2).</p> <p>The courts have unabashedly adopted this doctrine in determining the sufficiency of an EIR/EIS. (See generally City of Sausalito v. O'Neill, 386 F.3d 1186 (9th Cir. 2004); Nat'l Audubon Soc'y v. Dept. of the Navy, 422 F.3d 174 (4th Cir. 2005)). When evaluating a document under CEQA, the hard look doctrine requires that the EIR describe significant</p>	<p>The analyses contained within the Chapter 11 and associated appendices of the EIR/EIS were developed based upon best available science, which includes input from various natural resource agencies and subject matter experts, into the fish species impact analyses. More information on the assumptions and limitations of the analyses, along with a description of the methodology behind reaching impacts conclusion related to water operations can be found in Chapter 11 of the EIR/EIS. The impact analysis in the EIR/EIS is a comparative analysis to describe the changes under the action alternatives as compared to the Existing Conditions or No Action Alternative which include implementation of the 2008 USFWS biological opinion related to SWP and CVP operations. The impact analysis does not compare the future conditions to historical conditions.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>environmental impacts and describe any possible mitigation measures or why the project should move forward in light of the impacts. (Cal. Water Code [Section]15126.2(a)-(b)). In NEPA practice, the hard-look doctrine means examining and disclosing all of the significant environmental impacts in the EIS, as well as examining reasonable alternatives. (40 C.F.R. [Section]1502.14(a)).</p> <p>The BDCP and its accompanying EIR/EIS do not meet the hard-look disclosure requirements under CEQA and NEPA regulations, beyond the project description issues raised above. Rather than the frank and full look required by the law, the Plan and its associated documents instead force false optimism onto the ecological challenges facing the Delta; sacrificing objectivity in order to satiate the demand for water in the Central Valley. This section of the comment focuses on the issues particularly relevant to the already heavily litigated delta smelt, and the disparities between existing conservation plans and the BDCP's treatment of the issue.</p>	
1611	41	<p>The BDCP does not take a sufficiently "hard look" at the major stressors affecting the delta smelt population.</p> <p>Just one example of BDCP deficiencies is the incredibly optimistic assessment of the threat facing the delta smelt. Normally, optimism is to be commended, except where realistic expectations are both the norm and required by law. In regards to the delta smelt, there are several critical issues; including salvage, salinity, and critical habitat modification, that are not addressed sufficiently in the BDCP documents. Consequently, the EIR/EIS fails to take the required "hard look" at the environmental impact of the BDCP.</p> <p>The issue of overall salvage and take is dodged throughout the majority of the BDCP and the Draft EIR/EIS. "Salvage of delta smelt at the south Delta facilities could increase in the future if the population size increases as a result of the BDCP or other actions; however, this will not represent an increase in loss as a proportion of the population." (Plan, 5.5-35). The above statement blithely assumes that salvage will not be a problem with any new north Delta facilities, and any increased salvage at the existing south Delta facilities will be the result of overall increased delta smelt population. Such an assessment ignores several critical factors regarding the threatened nature of the delta smelt. It is an oversimplification of the factors resulting in the overall decline of the delta smelt population and a blatant misrepresentation of the overall stressors on the delta smelt.</p> <p>Furthermore the Plan states, "[m]any of the conservation measures proposed under CM1 constitute a continuation of existing operational criteria being implemented under the Biological Opinions... that currently constrain State Water Project and Central Valley Project operations." (Plan, ES-10). This statement seems to presuppose that the existing scientific information and conservation actions regarding the delta smelt will feature prominently in the BDCP and any future changes to the Delta infrastructure. This assessment is blatantly not the case; there are only a smattering of references to the previous Biological Opinions and prior science throughout the BDCP. There is no succinct, centralized section that discusses the integration of the BDCP with existing, legally required ecological initiatives. This deficiency is a violation of the "hard look" required under both CEQA and NEPA, and mandates the redrafting of the EIR/EIS.</p> <p>The existing BiOp (from 2009) identifies multiple stressors on the delta smelt population, including: decline in food availability, predation, multiple contaminants, low dissolved oxygen, excessive turbidity, alterations in Delta hydrodynamics, increases in temperature,</p>	<p>The 2013 Draft BDCP effects analysis, which is also incorporated into the EIR/EIS by reference, examines a variety of stressors (referred to as attributes) affecting delta smelt and other covered fishes. The relative importance of these attributes has been given a qualitative ranking (zero to critical) based on published studies, as summarized in sections 5.2.7.10 and 5.5 of Chapter 5 in the Draft BDCP. The list of attributes reflects stressors discussed in documents such as the USFWS Biological Opinion. Ongoing coordination with the resource agencies will aim to refine attribute representation as part of Adaptive Management of the Proposed Project.</p> <p>With respect to the specific example of entrainment, it is categorized as an attribute of low to moderate importance in the effects analysis; this is appreciably lower than the critical importance assigned to zooplankton abundance in the effects analysis. Because entrainment is largely a function of operations, which can be modeled, and there are established quantitative relationships between operations and entrainment, the quantitative analyses for entrainment are more extensive than the analyses possible for other resource topics. However, the overall net effects assessment for delta smelt and other covered fishes considers all attributes.</p> <p>With respect to the specific comment that "The above statement blithely assumes that salvage will not be a problem with any new north Delta facilities, and any increased salvage at the existing south Delta facilities will be the result of overall increased Delta smelt population.", the statement reflects the preceding effects analysis specific to entrainment: in keeping with agency biologist opinion, the potential for negative effects on delta smelt of the north Delta intakes is assessed to be low because of the low spatial overlap of the species with the proposed intake location (i.e., delta smelt mostly occur well downstream of the intakes); the analysis of the proportion of the delta smelt larval/juvenile and adult populations lost to entrainment at the SWP/CVP south Delta facilities was estimated (using the methods from the 2008 USFWS Biological Opinion) to be similar (larvae/juveniles) or lower (adults) than is being achieved as a result of the 2008 USFWS Biological Opinion.</p> <p>With respect to analysis of critical habitat modification, a detailed treatment of that topic will be included in the section 7 consultation of the BDCP. Note that the new proposed project (California WaterFix/Alternative 4A) does not include large-scale habitat restoration and would not be implemented as an HCP under ESA Section 10. Instead, the proposed project will achieve incidental take authorization through the ESA Section 7 permitting process. Please see Chapter 3 in the EIR/EIS for more information.</p> <p>Regarding inclusion of integrating measures from the existing Biological Opinions, the commenter is referred to the descriptions of alternatives in Chapter 3 of the EIR/EIS which describes for example, Delta Cross Channel gate criteria (the same operations as the NMFS Biological Opinion), and fall outflow criteria</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>increases in salinity, and entrainment. (Independent Expert Panel Review of the Family Farm Alliance's Information Quality Act Correction Requests, 5-6, prepared for the Environmental Protection Agency (2009), available <a href="http://www2.epa.gov/sites/production/files/documents/ocap-iqa-appeal-response-expert-review_0.pdf">http://www2.epa.gov/sites/production/files/documents/ocap-iqa-appeal-response-expert-review_0.pdf</a>). The BiOp, and follow-up independent reviews, notes that it is nearly impossible to predict which of the stressors has the most impact on the delta smelt population. However, it does identify long-term changes, such as outflow and salinity; and the decline in food resources as key factors. (Id. at 6). While entrainment is a major issue (and perhaps one of the most easily managed) for the delta smelt, it is also one of the least critical in fostering the recovery of the species. (Id.). The BiOp, the myriad of litigation involving the validity of the BiOp, and the independent evaluations of the BiOp all make this abundantly clear.</p> <p>Yet despite the numerous other critical factors affecting the delta smelt, entrainment is one of the primary focuses of the BDCP and its accompanying EIS. In constructing the north of Delta conveyance facilities, the BDCP touts improved entrainment systems than the existing facilities south of Delta. In limiting entrainment of the delta smelt, the BDCP hopes to fulfill its conservation goals without substantively addressing any of the other numerous (and arguably more critical) factors relating to destruction of the fish's habitat.</p> <p>This myopic approach to delta smelt conservation is in direct contradiction to NEPA guidelines. The limited scope of the EIS's evaluation of the proposed project on the delta smelt is inconsistent with the "objective hard look" standard. Simply focusing on one element affecting the delta smelt does not fully disclose the environmental risks or impacts in any meaningful way. The refusal to incorporate good, existing scientific data regarding the threats and proposed resolutions to recover the delta smelt population cannot be deemed valid. At best it is willful ignorance of existing scientific data; at worst it is a deliberate attempt to subvert required conservation programs through obfuscation.</p>	<p>reflecting the FWS Biological Opinion per the Decision Tree process (please see Master Response 44).</p>
1611	42	<p>The BDCP does not sufficiently integrate existing science and therefore fails to take a sufficiently hard look at the conservation measures required for the delta smelt population.</p> <p>The Draft EIR/EIS places a small, two-paragraph description of the relationship between the BDCP and the existing Biological Opinions in Chapter 1, which is cross-referenced in the Executive Summary. (Plan, 1-9). This minor reference is fundamentally flawed in several ways. First and foremost, it refers to a state of the Biological Opinion that is no longer true. As of March 2014, the Ninth Circuit certified the existing BiOp as valid. (San Luis &amp; Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 592 (9th Cir. 2014)). The BDCP instead maintains that this BiOp must be revised and brushes aside any further discussion of being bound by the existing science. (Plan, 1-9) ("In 2011, these BiOps were remanded... [and] revised BiOps are to be issued by December 1, 2014 (USFWS) and February 1, 2017 (NMFS)...the joint BiOp for the BDCP will cover only those operations that occur after the new water conveyance facilities are operational [after 2026]..."). This presupposition ensures that the discussion regarding necessary steps to conserve and foster repopulation of the delta smelt under the BDCP is fundamentally flawed.</p> <p>The BDCP does discuss the preexisting Biological Opinion for the delta smelt in very minor detail.</p> <p>"The BDCP is expected to result in very low levels of entrainment relative to conditions prior to implementation of the USFWS (2008a) BiOp, and is expected to maintain total</p>	<p>The language contained in the public draft BDCP regarding the status of the remanded Biological Opinions was written prior to the March validation of the FWS Biological Opinion; this language has been revised for the Final EIR/EIS.</p> <p>Much of the aquatic resources analyses in the EIR/EIS reflects the same methods or science contained in the 2008 USFWS Biological Opinion. Discussions of the 2008 USFWS Biological Opinion are presented in more detail in Chapter 5 and Appendix 5A, and in Chapter 11 and associated appendices. The first element of the 2008 USFWS Biological Opinion is reduction of south Delta exports to limit adult and larval/juvenile entrainment losses of delta smelt. The proposed project would achieve at least the same amount of entrainment protection. Second, Fall X2 in wet and above-normal years as required in the USFWS (2008a) biological opinion as one element of delta smelt habitat restoration, is included in the proposed project operations. The fall outflow decision-tree process is conceptually similar to the Fall X2 requirement of the USFWS (2008a) biological opinion, and should provide the same level of protection for delta smelt with respect to Fall X2. Finally, 8,000 acres of restoration to replace lost food web productivity in accordance with the 2008 USFWS Biological Opinion is included in the No Action Alternative and the Proposed Project.</p> <p>Please note that the proposed project, Alternative 4A, no longer includes large-scale habitat restoration and would not act as an HCP. Instead, Alternative 4A would achieve incidental take authorization through the ESA Section 7 and CESA 2081(b) permitting processes. However, any impacts as a result of construction and operations of the proposed project will be fully mitigated to ensure no significant or adverse impacts to</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>proportional entrainment loss across all SWP/CVP Delta export facilities at levels below those achieved under the current USFWS BiOp. The BDCP provides the additional benefit of natural communities restoration, which is expected to increase the extent of tidally influenced habitat, including tidal marshes, and shallow subtidal habitats, in the Plan Area. Proposed restoration areas are spatially diverse, are within and adjacent to currently important habitats, and are expected to provide a range of habitat conditions, SOME [emphasis added] of which will be suitable for delta smelt spawning and rearing. "</p> <p>(Plan, 5.5-35).</p> <p>Further discussion of the USFWS BiOp occurs over the course of about a page. The BDCP concludes that impacts will be beneficial on the poor delta smelt, with "low certainty." (Plan, 5.5.1-42). The limited discussion of the overall Biological Opinions, and particularly discussion regarding the delta smelt, ensures that the neither the Draft BDCP nor the Draft EIR/EIS executes the required hard-look at environmental impacts.</p> <p>Subsuming the existing BiOps into a larger regulatory framework dilutes and quietly disappears fundamental and mandated recovery methods. Refusing to address the existing BiOps evidences a desire to avoid legally mandated conservation steps. Furthermore, the time gaps between the existing BiOps and the proposed, integrated opinions for the project allow for severe degradation and the possible extinction of the delta smelt. In structuring the BDCP's proposed integration with existing, legal requirements in such a tenuous manner, the plan proponents are attempting to free themselves from the constraints imposed by existing conservation requirements. This is again a violation of the "hard look" required under NEPA and CEQA. Rather than acknowledge the existing science and preexisting conservation requirements, the BDCP has only mentioned that these elements exist before promoting its own optimistic assessment of the stressors affecting the delta smelt. This is contrary to the law, and requires the redrafting of the EIR/EIS in order to fully embrace existing science and provide the mandated "hard look."</p>	<p>covered fish species. Alternative 4A's operational scenario includes the 2008 USFWS BiOp Fall X2 requirements to benefit Delta smelt, in addition to spring outflow criteria to minimize and avoid project-related impacts to longfin smelt.</p>
1611	43	<p>The BDCP does not take a sufficiently "hard look" at the future requirements of conservation in the Delta in its approach to structuring future Biological Opinions in either the Plan or the Draft EIR/EIS.</p> <p>In addition to not adopting, or at least mostly appropriating, the existing Biological Opinion in a faithful attempt to conserve the delta smelt, the production of any further Biological Opinions will be disturbingly fragmented. Such production is contradictory to the stated goal of encapsulating everything Delta-related in a stable regulatory framework. The BDCP discusses a revised BiOp to cover activities that occur "after the new water conveyance facilities are operational." (Plan, 1-9). In the interim, the Plan wants the existing BiOps to remain the governing documents; all but precluding usage of new BiOp documents during the 50-year life of the permit, with the exception of the single joint document to be produced in approximately 2026. (Plan, 1-9). The plan proponents are seeking a fifty-year carte blanche without any attendant responsibility, and in the process assuring species destruction through a subversive and abusive ESA process.</p> <p>The Draft EIR/EIS seems to confirm the fatalistic impulse behind plan proponent's logic, stating, "fundamental changes to the Delta are certain to occur... add[ing] to the difficulty of resolving the increasingly intensifying conflict between the ecological needs...and the need to provide adequate and reliable water supplies." (EIR/EIS, 2-7). This statement solidifies the Plan's attitude towards conservationist measures. With the changing nature of the Delta</p>	<p>As described in the response to comment 1611-42, the BDCP builds on the science contained in the USFWS Biological Opinion for delta smelt.</p> <p>Under the revised Proposed Project, incidental take authorization is being requested by Reclamation under ESA via a biological assessment submitted for consideration and issuance of biological opinions by USFWS and NMFS; while incidental take authorization under CESA is sought via a 2081(b) Application from DWR to CDFW. The biological assessment and 2081 permit application incorporate the existing biological opinion and incidental take permit into the environmental baseline.</p> <p>The language contained in the public draft BDCP regarding the status of the remanded Biological Opinions was written prior to the March validation of the FWS Biological Opinion; this language has been revised for the Final EIR/EIS. Much of the aquatic resources analyses in the EIR/EIS reflects the same methods or science contained in the 2008 USFWS Biological Opinion. Discussions of the 2008 USFWS Biological Opinion are presented in more detail in Chapter 5 and Appendix 5A, and in Chapter 11 and associated appendices of the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>ecosystem, the plan attempts to persuade us that it will be unable to accurately accommodate conservation needs. This will certainly be true if it cannot abide by and produce accurate and timely Biological Opinions. In approaching the BiOps in such a fragmentary way, the BDCP is creating a self-fulfilling prophecy of species extinction, contrary to the law.</p> <p>Spread across the Draft EIR/EIS and the overall BDCP, are significant and fatal errors in procedure and structure. While this is unsurprising giving the complex and convoluted nature of CEQA and NEPA, it does not mean that the BDCP should be shown leniency. The project is simply too complex and far-reaching to ignore these serious deficiencies. In determining project descriptions, the Draft EIR/EIS fails the sufficiently informational and "hard look" requirements under NEPA. The project is ill defined and vague. This necessitates, at the very least, redrafting the project objectives to more fully encompass the established co-equal goals of conservation and water security. Furthermore, the Draft EIR/EIS fails the "hard look" requirements by not fully incorporating the best existing science, including existing Biological Opinions, regarding the stressors affecting the delta smelt. This is a violation under both CEQA and NEPA. Only through serious redrafting and revision can all of the issues currently affecting the BDCP be fixed, and until that time, the legal requirements for the project to move forward have not been met. Due to the complexity of the issues, it may be best to simply abandon the project before committing massive amounts of funding to an improper project.</p>	
1611	44	<p>Failure to analyze cumulative impacts under NEPA and CEQA:</p> <p>The Bay Delta Conservation Plan is an enormous project which, if approved, would cause widespread, environmental impacts. However, many of these impacts remain unevaluated in the Draft BDCP and EIR/EIS. These impacts, even if individually insignificant in some instances, accumulate to cause significant cumulative impacts. Some of the BDCP's significant cumulative impacts include the geographic scope of effects, dredging, operational impacts to upstream reservoir operations, and the recreation industry.</p> <p>As a result of California's history with large projects, we can expect the initial projections to be inflated by the time the project reaches implementation. "[A]cross the globe, large infrastructure projects almost invariably arrive late, over-budget and fail to perform up to expectations." Dan Walters, Op-Ed., Is Bay Bridge Fiasco a Harbinger for Future Projects?, Sac. Bee, July 28, 2013, [Section]A3. (quoting Bent Flyvberj, "Delusions and Deception in Large Infrastructure Projects." (51 California Management Review 170) (Winter 2009)). The underlying reasons are "delusions born of ignorance, deceptions to make projects sound more feasible than they truly are, and bad luck."(Dan Walters supra). The BDCP is "based on assumptions of need and utility that are questionable and may be ...'delusions' or perhaps 'deceptions.'" (Dan Walters, quoting Bent Flyvberj supra). In fact, limiting the analysis of cumulative impacts makes the "project[] sound more feasible than [it] truly [is]" but the overall report is misleading. To prevent this misrepresentation of project benefits, the BDCP must be all-inclusive, transparent and accessible so that the public can adequately review the proposal before further action is taken.</p> <p>Both NEPA and CEQA require that the lead agency assess the cumulative environmental impacts of a project using the best available information and tools available. The laws mandate that a cumulative impact analysis is required when a project is proven to be significant in combination with the effects of past projects, other current projects and future projects. Further indicators that an analysis is necessary are the past, present and</p>	<p>Cumulative impacts are addressed in all of the EIR/EIS resource chapters as required under CEQA and NEPA. These analyses consider other past, present and reasonably foreseeable projects for which environmental documents have been produced and other project, such as those considered in the California Water Action Plan. A complete list of these projects is included in Appendix 3D, Table 3D-A. The geographic scope of effects is addressed by considering cumulative projects in the proposed project region that could contribute to cumulative impacts on a particular resource. Tunnel material effects and other effects from cumulative impacts that could result in land use changes or agricultural land conversion is presented in Chapter 13, Land Use and Chapter 14, Agricultural Resources. Potential cumulative hydrodynamic effects of cumulative projects is considered in Chapter 6, Surface Water and cumulative recreation impacts are evaluated in Chapter 15, Recreation.</p> <p>Comments related to the potential for cost over-runs are not considerations included in the EIR/EIS analyses because they do not involve potential physical or human effects on the environment.</p> <p>With respect to uncertainties, the results of the impact assessment and the cumulative impact assessment do discuss future uncertainties, especially related to changes in resources due to climate change and sea level rise. Therefore, the Proposed Project and No Action Alternative are only analyzed at 2030 future conditions; and the analysis is in a comparative manner. It also should be recognized that because the models used in the EIR/EIS analysis (e.g., CALSIM II and others) can only be used in a comparative manner; and cannot be used to determine absolute values. Comparative analyses would reduce the level of uncertainty in similar assumptions in the compared alternatives; and therefore, it was determined that an uncertainty analysis was not required for this EIS. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>foreseeable future projects that are closely connected that will have a probably effect on the environment.</p> <p>However, the Delta Independent Science Board cautions that danger of speculation does not allow an agency to omit discussion of uncertainties surrounding the effects of a project: "[A]voiding clear articulation of uncertainties is not the same as avoiding speculation." Delta Independent Science Board, Review of the Draft EIR/EIS for the Bay Delta Conservation Plan, (May 15, 2014). Excluding uncertainties deprives the public and government agencies of the opportunity to evaluate and assess unanticipated impacts on human activity and the environment.</p> <p>The current, narrow geographic scope must be expanded to include all potential impact areas, such as effects from dredging tunnel muck and effects on the recreation industry in and around the Delta region. Here are a few examples of issues that are not properly considered on a programmatic level.</p>	
1611	45	<p>Limited geographic scope of effects:</p> <p>The Plan's geographic scope is narrowly limited to where the new infrastructure will be located and where it will directly or indirectly impact previously built resources. (EIR/EIS, 18.3.3). San Pablo Bay and the San Francisco Bay are two impacted bays that are not included in the BDCP's defined boundaries for the EIS. This excludes cumulative impacts from the Draft BDCP:</p> <p>"The Plan Area terminates at Carquinez Bridge, effectively excluding the entirety of San Francisco Bay. As a result, impacts to water quality, aquatic habitats, fish and wildlife, and estuarine dynamics in the San Francisco and San Pablo Bays have not been considered adequately in the Draft EIR/EIS and Effects Analysis. As noted by the National Research Council review of BDCP in 2011: since BDCP aims to address management and restoration of the San Francisco Bay-Delta, this is a significant omission that must be rectified. "</p> <p>(Letter from Barbara Salzman, President, Friends of the San Francisco Estuary, to Felicia Marcus, Chair, Water Resources Control Board (Oct. 30, 2013) (accessed on July 17, 2014).)</p> <p>The Draft EIR/EIS states that it, "consider[s] significant effects of the proposed alternatives within certain boundaries as determined by direct impacts, tunnel areas, temporary and permanent power, visual or auditory impacts and impacts to national register listed districts or potential districts. (EIR/EIS, 18-45). However, the consequences that will result from the activities within the boundaries of the current geographic scope as defined by Chapter 18 will "extend downstream to affect [excluded] bays." Delta Independent Science Board, to Randy Fiorini, Chair, Delta Stewardship Council, and Charlton Bonham, Director, California Department of Fish and Wildlife (May 15, 2014) (accessed on July 17, 2014). Changes in these omitted bays as a result of the proposed new water conveyance infrastructure will impact the Draft BDCP's Plan Area. Id. For example, any changes in sedimentation within the Delta will cause environmental impacts outside the plan's geographic scope. Id. At 9. Further, the San Pablo Bay and the San Francisco Bay will affect the "tidal fluxes and salinity intrusion into the Delta. Many fish species also migrate into or through these areas." Id. A geographic scope that fails to include the San Pablo Bay and the San Francisco Bay will fail to analyze the whole of the cumulative impacts.</p>	<p>This comment appears to express concerns about the geographic scope of analysis and the possibility that impacts of sedimentation on downstream bays on cultural resources and National Register historic districts based upon the cited pages in the Draft EIR/EIS. Changes of sediment within the Delta, tidal fluxes, or salinity intrusion into the Delta all do not have the potential to impact National Register listed districts or potential districts since such districts are not located within the water bodies of the San Francisco and San Pablo Bays; and therefore, this analysis was not considered in the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	46	<p>Tunnel muck and dredging material:</p> <p>The enormous size of the new infrastructure would require substantial excavation of land in addition to treatment of the resulting "tunnel muck." The Plan has increased in size from a proposed diameter of 33 feet in 2012, to what is now the Preferred Alternative, Alternative 4 (Administrative Draft EIR/EIS, pp. 3-54, 3C-17, March 2013). Under Alternative 4, the conveyance would be about 35 miles long, 150 feet underground, with an external diameter of 44 feet (Id.). In order to install these enormous tunnels, "Tunnel muck" (also known as dredged material) needs to be excavated [{"In the world of tunneling, "muck" refers to the excavated, toothpaste-like material that is bored from the ground below and transported by conveyor belts or rail carts to a staging area above...tunneling can produce a lot of material." Richard Stapler, Deputy Director, Communications, California Natural Resources Agency, "Muck: A Reusable Material from Tunneling" (June 13, 2013) (accessed on July 22, 2014)}. [Footnote 1: <a href="http://baydeltaconservationplan.com/news/blog/13-06-13/%E2%80%9CMuck_%E2%80%9D_A_Reusable_Material_from_Tunneling.aspx">http://baydeltaconservationplan.com/news/blog/13-06-13/%E2%80%9CMuck_%E2%80%9D_A_Reusable_Material_from_Tunneling.aspx</a>].</p> <p>The Draft EIR/EIS alleges that the attempts to mitigate the inevitable adverse effects to air quality from the extensive and necessary use of large, construction machinery:</p> <p>"Site selection...such as locations within 10 miles of construction feature would minimize truck travel to help address air quality effects [and] implementing a construction equipment exhaust reduction plan...would also help reduce adverse effects" (EIR/EIS, 31.5.1.4). Regardless of the Plan's proposed travel zone, there will be a substantial increase in greenhouse emissions from countless trips by large trucks to move the excavated tunnel muck away from the construction sites [{"[I]mpacts include pile driving, every day for a year. Trucks will be moving "tunnel muck," excavated to build the tunnels, 24 hours a day, seven days a week -- causing an increase in greenhouse gas emissions." Galen Kusic, Skepticism Growing toward 'Twin Tunnels' Project: Gov. Brown's Bay Delta Conservation Plan in Hot Water, San Francisco Bay View, May 7, 2014)}. (accessed July, 17, 2014). [Footnote 2: <a href="http://sfbayview.com/2014/05/skepticism-growing-toward-twin-tunnels-project-gov-brown-s-bay-delta-conservation-plan-in-hot-water/">http://sfbayview.com/2014/05/skepticism-growing-toward-twin-tunnels-project-gov-brown-s-bay-delta-conservation-plan-in-hot-water/</a>]. Furthermore, the Draft EIR/EIS only mentions a ten mile zone for mitigating the trucks emissions, but omits any reference to final dump sites and reuse sites that will undoubtedly adversely affect the air quality. The expansive tunnels will demand a great number of trucks to remove the tunnel muck.</p> <p>The Draft EIR/EIS suggests that not only will they mitigate the adverse effects to the environment resulting from excavating the "tunnel muck," but that these measures will result in positive contributions [{"[Selected reuse strategies, implementation of spoils, reusable tunnel material [RTM], and dredged material reuse plans could result in beneficial effects associated with flood protection and response, habitat creation, and depth to groundwater in areas where the ground level is raised." EIR/EIS, 31.5.1.4)}. The Draft EIR/EIS focuses on the reusability of the tunnel muck, but fails to adequately address the costs associated with the excavation and transportation of vast amounts of the earth (EIR/EIS, 31.5.1.4). The Draft EIR/EIS recites a litany of benefits from reuse of the excavated land [{"It is anticipated that one or more of the disposal and reuse methods could be implemented in any individual spoil, RTM, or dredged material site." EIR/EIS, 31.5.1.4)}. While the report lists likely adverse effects resulting from reuse of the "tunnel muck," it fails to explore the costs associated with the implementation of material reuse plans [{"Depending on which combination of these approaches is selected, implementation of material reuse plans could</p>	<p>In the Final EIR/EIS, additional information is included related to handling and disposal of Reusable Tunnel Material, as described in Appendices 3B and 3C of the EIR/EIS and the Conceptual Engineering Report. The Proposed Project includes additional construction methods and environmental commitments as compared to the descriptions provided in the Draft EIR/EIS to reduce effects on air quality, water quality, visual resources, land uses, and agricultural resources (as described in Chapters 22, 8, 17, 13, and 14 of the EIR/EIS, respectively). Please also refer to Master Response 12 regarding reusable tunnel material.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>create environmental impacts related to ground disturbance, noise, release of hazardous materials, traffic, air quality, water quality, and important farmland or farmland with habitat value for covered species." (Id.)).</p> <p>The Draft EIR/EIS does not adequately discuss costs associated with the disposal and reuse of spoils or the costs from the expansive material dredging [("Under the estimates released by the state, building the tunnels, three large intakes on the river and associated facilities would cost \$14.5 billion." Bettina Boxall, California Plan to Overhaul Water System Hub to Cost \$25 Billion, Los Angeles Times, May 29, 2013, accessed July 17, 2014)]. [Footnote 3: <a href="http://articles.latimes.com/2013/may/29/local/la-me-delta-cost-20130530">http://articles.latimes.com/2013/may/29/local/la-me-delta-cost-20130530</a>].</p>	
1611	47	<p>Despite the tunnels dependence on incorporating upstream reservoirs in order to ensure flow exports, the "BDCP analysis assumes no operation impacts to upstream reservoir operations." Restore the Delta, BDCP Would Make All This Worse, quoting the Bureau of Reclamation's comments on the Draft BDCP's EIS (July 31, 2013) (accessed July 17th, 2014). [Footnote 4: <a href="http://restorethedelta.org/bdcp-would-make-all-this-worse/">http://restorethedelta.org/bdcp-would-make-all-this-worse/</a>] The Draft BDCP dumps the issue of impacts to upstream reservoirs in a brief section entitled "Issues Not Carried Forward for Detailed Analysis". The Draft EIR/EIS states "operational changes are not carried forward for detailed analysis because they are too speculative for meaningful consideration." (EIR/EIS, 18.3.4) (emphasis added). In addition to pointing to climate change as a main contributor to upstream impacts, the plan declares that "current modeling shows that precipitation, rather than operational rules, is the largest cause of fluctuation at upstream reservoirs." Id. While saying that fluctuations prevent a proper analysis, the report identifies that "Alternative 4 however, has some potential to increase fluctuation of reservoirs levels at Lake Oroville." Id.</p>	<p>The comment is consistent with the EIR/EIS in that the No Action Alternative and the action alternatives do not include changes in reservoir operations criteria in response to climate change and sea level rise. It would be speculative to consider future changes to reservoir operations in the No Action Alternative and Cumulative Impact Analysis. Such changes are not included in the action alternatives because they would not support the Project Objectives or Purpose and Need statement. Changes in reservoir operations criteria would only occur following detailed analyses, including project-specific CEQA and NEPA analyses, if appropriate. Following adoption of changes to reservoir operations criteria, DWR and Reclamation would need to determine if changes in the SWP and CVP would be necessary. Alternative 4H 4 would change operational rules in Lake Oroville to release water for different Delta outflow criteria.</p>
1611	48	<p>It is undisputed that the Delta is a popular, lucrative destination for water and land based recreation. The overlap in these activities increases the appeal of the Delta and many visitors engage in multiple activities in one day. The Draft EIR/EIS lays out a review of recreation in the Delta, including the many different activities on a daily basis: "Recreation users in the Delta often participate in multiple activities during a daily visit... [such as] boating and fishing...wildlife viewing, sightseeing, walking, picnicking, and camping." (EIR/EIS, 15.1.1.1).</p> <p>The Draft EIR/EIS accepts that the Delta is one of the premier attractions for land and water activity: "These waterways are used for boating, fishing, and other water-based and water-related recreation opportunities and are among the most popular waterways in the state for the pursuit of these activities. (EIR/EIS, 15.1.1.2.) For instance, the Delta is the fourth most popular boating destination: "Portions of the Delta...accounted for nearly half of the registered boats in the state..." (EIR/EIS, 15.1.1.1). Further, competitive activities not only bring positive attention to California but also bring revenue for the Delta region: "The Delta is one of the most productive trophy bass fisheries in the nation, and numerous bass tournaments are held in the Delta throughout the year, including several corporate-sponsored tournaments (California Department of Fish and Game 2007a)." (EIR/EIS, 15.1.1.1).</p>	<p>The comment is consistent with the EIR/EIS analysis. For more information on socioeconomic impacts from the BDCP to Delta recreation, please see Chapter 16 in the EIR/EIS.</p>
1611	49	<p>The Draft EIR/EIS limits its conservation plan directly to lands overseen by the United States Fish and Wildlife Service: "The conservation plan identifies goals, objectives, and strategies only for the lands that are currently, or soon to be, managed by USFWS, regarding habitat restoration and enhancement and protection of cultural resources." (EIR/EIS, 15.2.1.2). The</p>	<p>The comment is referring to text describing the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan under the Environmental Setting in Chapter 15 of the EIR/EIS. The impact assessment of recreation in Chapter 15 addresses a broader geographic area. The comment related to the definitions of temporary and long-term impacts are consistent with the recreation impact analysis in the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Draft EIR/EIS projects that the timeline for construction undertakings "adjacent to or within certain recreation areas or sites could last from 1 to 7.5 years; Temporary effects (loss of recreation opportunity) are considered short-term if the duration is 2 years or less, or long-term, if the duration is more than 2 years." (EIR/EIS, 15.3.3).	
1611	50	<p>The Draft EIR/EIS assumes that because there is not absolute data projecting long-term use at certain recreation areas, the Draft EIR/EIS can circumvent analysis of areas managed through leases from outside agencies:</p> <p>"While recreational activities could be disrupted at ponds used for water ski instruction and hound racing, access to these parcels is subject to lease agreements with DWR. Due to the nature of these lease agreements, these activities could not reasonably be expected to continue for the long-term with any definitiveness, therefore, these facilities would not be considered long-term and/or well-established recreational facilities. "</p> <p>(EIR/EIS, 15.3.3.9).</p>	After the text cited in this comment, the text in Chapter 15 describes that there would continue to be extensive opportunities for waterskiing throughout the Delta; and that the project proponents would contribute funds for the construction of new recreation opportunities, including hunting opportunities, as described in Appendix 3B, Environmental Commitments, of the EIR/EIS.
1611	51	<p>The Draft EIR/EIS states that "property values may decline in areas that become less desirable in which to live, work, shop, or participate in recreational activities. For instance, negative visual- or noise-related effects on residential property could lead to localized abandonment of buildings." (EIR/EIS, 16.3.3.9). But, Bill Wells, Executive Director of the California Delta Chamber of Commerce, commented that many of the businesses in the Delta that will feel the effects of the plan are locally owned businesses that are unlikely to withstand a shift to recreation activity in the region following California's economic downturn. Peripheral Tunnels Economic Impacts Inflated: Gov. Brown Refuses to Conduct Benefit-Cost Analysis; Cost Estimate has Tripled, Public will Pay, Restore the Delta (August 5, 2013) (accessed on July 23, 2014). [Footnote 5: <a href="http://restoredelta.org/peripheral-tunnels-economic-impacts-inflated-gov-brown-refuses-to-conduct-benefit-cost-analysis-cost-estimate-has-tripled-public-will-pay/">http://restoredelta.org/peripheral-tunnels-economic-impacts-inflated-gov-brown-refuses-to-conduct-benefit-cost-analysis-cost-estimate-has-tripled-public-will-pay/</a>]</p>	Effects on recreation economics as a result of the action alternatives as compared to the Existing Conditions and No Action Alternative are described in Chapter 16 of the EIR/EIS.
1611	52	<p>Agriculture, tourism and recreation are the main sources of commerce in the Delta. Id. According to the California Delta Chamber of Commerce:</p> <p>"While 75% of Delta boaters live within 75 miles of the Delta the region attracts visitors from all over the world with its 1,000 miles of waterways and vast opportunities for land based too. [But] [p]roposed disruptions to State Routes 4, 12, and 160 will limit the number of automobiles that visit the area. The 24 hour per day operations of pile drivers and huge trucks hauling 'muck' will further disrupt traffic as well as boating, fishing, hunting, bird watching, wine tasting and casual day trips to area towns, museums, and restaurants. The construction of giant intakes at the town of Hood will disrupt boat traffic on the Sacramento River. The proposed barriers on Georgiana Slough and elsewhere in the Delta will further block boat traffic."</p> <p>(Id.)</p>	Construction of the conveyance facilities would result in disruptions to agriculture, tourism, and recreation in the Delta as described in Chapters 14, 15, and 16. Implementation of mitigation measures and environmental commitments related to transportation, agriculture, and recreation would be anticipated to reduce these adverse effects (see Appendix 3B, Environmental Commitments and Chapters 14, 15, and 16 of the EIR/EIS). Specifically, these include commitments to reduce the severity of significant impacts in agricultural areas by implementing activities such as siting project footprints to encourage continued agricultural production; relocating or replacing agricultural infrastructure in support of continued agricultural activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. With respect to recreation, mitigation measures include noise abatement, measures to reduce visual degradation, measures to address traffic and transportation safety and access conditions for roads and waterways, measures to reduce light and glare, and measures to protect habitats.
1611	53	<p>NEPA defines a cumulative impact as a series of connected actions that, while appearing to be separate actions, all work to contribute to an aggregated impact:</p> <p>"[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative</p>	Cumulative analyses in the EIR/EIS have been updated following the Draft EIR/EIS to include consideration of additional potential projects in and around the Plan Area that could potentially combine with the project alternatives to affect a particular resource. The geographic scope of the analysis depends on the resource being considered. For example, cumulative land use impacts primarily focus on effect in or near the Plan Area. Cumulative impacts on air quality and fish and aquatic resources necessarily included a more regional

DEIRS Ltr#	Cmt#	Comment	Response
		<p>impacts can result from individually minor but collectively significant actions taking place over a period of time."</p> <p>(40 C.F.R. [Section] 1508.)</p> <p>For example, the EIR/EIS's limited Geographic Scope of Effects for the study area prevents a full analysis of the 'reasonably foreseeable future actions' and project impacts. Connected actions that are not considered in the narrow geographic scope include any impact to either the environment or human activities that will result outside of the current area of study. Projects that will impact one contiguous system require an adequate analysis of the impacts in an EIS.</p> <p>Narrowing the geographic scope of the effects does not act as a get out of jail free card. The agency must show all the effects from the project, including those outside the direct project area, even if the agency negligently failed to include measurements regarding the significance or insignificance of the effects on the San Pablo and San Francisco Bays. Further, analysis is problematic when the impact to the existing system and the system's capacity to sustain additional use generated from the project had not been prudently contemplated. Omitting two large bays that are vital to California proves that the Draft BDCP improperly fails to analyze supplementary uses required by the project and the affect to San Pablo and San Francisco Bay's current operations.</p>	<p>approach depending on the specific impact mechanism discussed. This Final EIR/EIS has been updated in the water quality (Chapter 8), air quality (Chapter 22), and fish and aquatic resources (Chapter 11) to address potential effects downstream of the Plan Area in San Francisco Bay. Please see Master Response 9 regarding the cumulative impact analysis.</p>
1611	54	<p>The "Connected actions" create a cumulative impact and must be discussed in the one single EIS. These "individually minor but collectively significant actions" (40 C.F.R. [Section] 1508.7) cannot be broken up into separate segments so as to fragment what is in actuality a single project:</p> <p>"Actions are connected if they (i) '[a]utomatically trigger other actions which may require environmental impact statements,' (ii) '[c]annot or will not proceed unless other actions are taken previously or simultaneously,' and (iii) '[a]re interdependent parts of a larger action and depend on the larger action for their justification.'"</p> <p>(40 C.F.R. [Section] 1508.25(a)(1).)</p> <p>Simply put, "[connected actions] are links in the same bit of chain"; unconnected actions are "separate segments of chain." Northwest Res. Info. Ctr. v. Nat'l Marine Fisheries Serv., 56 F.3d 1060, 1068 (9th Cir.1995). NEPA necessitates an adequate cumulative analysis in every EIS for transparency and accessibility to the public: "To make an informed decision about how or whether to proceed with the proposed projects and to comply with NEPA, an agency must identify their potential combined environmental impacts and make that information available to the public." Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 991 (9th Cir. 2004).</p> <p>NEPA institutes a "hard look" standard of review to determine if several actions could result in a cumulative effect. If so, the agency is required to draft an EIS that includes detailed and calculated information regarding all potential effects. This "hard look" must be more than "general statements about possible effects and some risk do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided." (40 C.F.R. [Section] 1508.7.)</p>	<p>This Final EIR/EIS presents revised and updated cumulative impact discussions for all of the resource chapters following publication of the Draft EIR/EIS. Please see Master Response 9 regarding the cumulative impact analysis.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	55	<p>The Draft EIR/EIS's treatment of adverse effects resulting from dredging for the tunnel construction to air quality is too brief. Contrary to NEPA's purpose to ensure the public has access to the information surrounding the Plan, glossing over these adverse effects undermines goals of transparency and accessibility. Bureau of Land Mgmt. at 991. Dredging tunnel material is a connection action with effects that domino into other environmental effects, such as air quality, and associated costs. 40 C.F.R. [Section]1508.25(a)(1). The Draft EIR/EIS falls short of NEPA's "hard look" standard of review, which requires that the "EIS includes detailed and calculated information regarding all potential effect...and [more] than some risk". 40 C.F.R. [Section]1508.7. For example, the explanation of the "construction equipment exhaust reduction plan" is not suitably detailed. (EIR/EIS, 31.5.1.4). The missing analysis of greenhouse emissions, costs, number of large trucks of removal, and the distance to final dumpsites or reuse areas are all connected actions under NEPA and are not analyzed in the Draft EIR/EIS. The Draft EIR/EIS also states that placing dredging dump locations within ten miles from the construction site will help to mitigate air quality. Id. However, the Draft EIR/EIS fails to continue the analysis of potential mitigation measures. There is no discussion of final destination sites to store and/or reuse this dredged material. Establishing a ten-mile travel zone to "minimize truck travel" is misleading without information regarding the number of trucks and the projected demands on each truck. The "selected reuse strategies" are not explained in any detail, which violates NEPA's requirement for something more than a cursory explanation. Id. This attempt to purport "beneficial effects" is far too conclusory without the in depth analysis to create a context for readers.</p>	<p>Air quality is a complex and vital resource in California. Given the dynamic and complex nature associated with project-generated air pollutants, the BDCP lead agencies have developed a comprehensive and aggressive mitigation strategy to address air quality and associated human health effects.</p> <p>As discussed in Appendix 3B, Environmental Commitments, of the Final EIR/EIS, the Construction Equipment Exhaust Reduction Plan is comprised of several aggressive performance standards. Specifically, an average performance standard of model year 2013 engines is identified for offroad equipment. This performance standard must be achieved at each construction site, although construction contractors may utilize a variety of control strategies to meet an emissions output equivalent to or better than a model year 2013 fleet. Potential control strategies include engine electrification, use of tier 3 or 4 engines, and use of diesel particulate filters. The Construction Equipment Exhaust Reduction Plan also includes a performance standard of model year 2010 engines for onroad vehicles, a Tier 3 engine requirement for marine vessels, and a Tier 4 engine requirement for tunneling locomotives. These requirements will be outlined in the Mitigation Monitoring Report Protocol (MMRP) and considered a condition of project approval.</p> <p>With respect to tunnel muck disposal, conveyors would be used to transport the RTM to storage piles, where they will dry naturally. Onsite equipment required to manage the pile and other borrow sites have been included in the emissions analysis. Once tunneling is complete, top soil will either be placed or the material may be transported to final disposal sites. The process for determining disposal, storage, and reuse of RTM is described in Appendix 3B, Environmental Commitments (Section 3B.1.19) of the Draft EIR/EIS. Final disposal of the muck, if moved, would be subject to all emissions control strategies outlined in Appendix 3B, Environmental Commitments. Please refer to Chapter 31 for additional information.</p>
1611	56	<p>The hidden costs around the excavation and transportation of the tunnel muck must be clearly presented. NEPA's "hard look" standard of review requires that the EIS contain "detailed and calculated information regarding all potential effects...and more than general statements..." 40 C.F.R. [Section] 1508.7. Actions that may be "individually minor but [are] collectively significant actions..." must be fully analyzed. 40 C.F.R. [Section] 1508.7. This cursory analysis of the tunnel constructions' adverse impacts on the environment omits a discussion of the costs and, more importantly, who will be bearing these costs. These omissions violate NEPA.</p>	<p>There are no hidden costs around the excavation and transport of tunnel muck, called "reusable tunnel material" in the 2013 public draft BDCP and EIR/EIS. The cost of excavating reusable tunnel material is included in the cost of construction of the proposed water conveyance facility tunnels. As described in the project description, tunnel material would be stockpiled on reusable tunnel material storage sites and tested to determine whether the material was suitable for reuse in restoration sites, levee projects, or other beneficial uses. If unsuitable due to hazardous conditions, material would be transported to an approved hazardous material disposal site. The costs of transport to a hazardous material disposal site are included in the cost estimates for construction of the water conveyance facility. The costs of transport of material to beneficial use sites is not included in the cost estimate because specific transport and reuse plans are not included in the proposed project. Once beneficial reuse projects are identified and defined, separate environmental compliance may be required. The location and nature of the receiving sites is unknown, as is the transport distance or method (e.g., truck, barge, or pipe). Therefore, costs for these beneficial reuse projects cannot be estimated at this time due to their speculative nature.</p> <p>With regards to costs and funding please see Master Response 5.</p>
1611	57	<p>The stunted analysis of operational impacts to upstream reservoirs operations defies NEPA's definition of collected actions that are "collectively significant actions taking place over a period of time." Id. The upstream reservoirs have a direct effect on the Delta and various rivers. Importantly, the proposed conveyance would be a significant project and substantial invasion into the existing environmental system. The Plan erroneously points to other, existing factors as insurmountable obstacles to an analysis: "incremental actions when added to other past, present, and reasonably foreseeable actions regardless of what agency...or person undertakes such other actions..." 40 C.F.R. [Section] 1508. Further, the EIS is responsible for evaluating "significant actions taking place over a period of time." Id. The Draft EIR/EIS violates NEPA when it assumes no operational impact, leaning on current</p>	<p>Changes in flows in the Sacramento, Feather, and American rivers and the SWP and CVP reservoirs on those rivers under the action alternatives as compared to the Existing Conditions indicate the changes that would occur due to implementation of the alternatives and due to climate change and sea level rise (see Appendix 5A, Section C, in the Final EIR/EIS). The operational criteria for the upstream SWP and CVP reservoirs are the same in the Existing Conditions, No Action Alternative, Proposed Project, and all other action alternatives.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>environmental factors such as fluctuation in precipitation and climate change. These existing factors are part of "past" and "present" actions that contribute to the overall impact. The new conveyance would be added to these factors in a single analysis. Plus, studies around climate change, precipitation, and independent management agencies are well established, so the argument that the EIR/EIS could not do slightly more analysis of the projects impacts upstream is attenuated. The Draft EIR/EIS cannot circumvent a proper analysis merely because there may be some uncertainty.</p> <p>Both the National Marine Fisheries Service and the Bureau of Reclamation have stated that failure of the current Draft EIR/EIS to analyze upstream operations and the related consequences of operating the tunnels is inadequate to satisfy NEPA requirements. The Draft EIR/EIS needs to be redrafted to include the impacts of the tunnels on upstream reservoirs.</p>	
1611	58	<p>The Draft EIR/EIS fails to adequately analyze the potential adverse effects on recreation and the respective industry. NEPA requires that connected actions require a single EIS, but the Draft EIR/EIS does not present data either way on whether lands outside of the Draft EIR/EIS's geographic scope will be affected, positively or negatively. 40 C.F.R. [Section] 1508.25(a)(1). For example, the Draft EIR/EIS cannot exclude effects that are projected to occur outside the direct geographic scope as those effects are interdependent actions that are triggered by actions inside the Plan area. Moreover, the Draft EIR/EIS separates construction operations into long term and short term projections: "adjacent to or within certain recreation areas or sites could last from 1 to 7.5 years; Temporary effects (loss of recreation opportunity) are considered short-term if the duration is 2 years or less, or long-term, if the duration is more than 2 years." (EIR/EIS, 15.3.3). But the Draft EIR/EIS does not discuss the possibility that "short-term" 2-year or less construction projects may have impacts on recreation for periods equal to or longer than the long-term projections. However,</p> <p>The EIR/EIS's preferred option, Alternative 4, does not satisfy NEPA's requisite "hard look" standard. The Draft EIR/EIS erroneously fails to look at the potential adverse impacts on a programmatic level:</p> <p>"In the Cosumnes River Preserve, an east-west permanent transmission line would be constructed adjacent to the northern boundary of the preserve along Lambert Road, where CDFW manages the lands as an ecological reserve. There is no public access permitted within this part of the preserve; therefore, the placement of the transmission line would not displace any recreational facilities."</p> <p>(EIR/EIS, 15.3.3.9).</p> <p>Narrowly focusing on this area in such a way limits a more comprehensive analysis of the cumulative impacts on the numerous recreation activities previously enumerated in the Draft EIR/EIS. This violates NEPA's requirement by overlooking the "past, present, and reasonably foreseeable future" impact on "collectively significant actions". 40 C.F.R. [Section] 1508.7. Placing the "permanent transmission line" in an area where there is supposedly no public access does not preclude impacts to adjacent recreation that does not require direct access to that land, such as bird watching. But there is no discussion to this effect. Furthermore, the ecological reserve is purported to act as a northern boundary, which draws on an assumption that this will prevent any impact to the reserve itself. However, construction will undeniably impact the reserve and could cause a ripple effect.</p>	<p>This comment refers to the description of impacts under "Impact REC-1: Permanent Displacement of Existing Well-Established Public Use or Private Commercial Recreation Facility Available for Public Access as a Result of the Location of Proposed Water Conveyance Facilities." The proposed transmission line would not permanently displace the Cosumnes River Preserve, as described. A more detailed discussion of the impacts from the transmission line to the preserve are described under "Impact REC-2: Result in Long-Term Reduction of Recreation Opportunities and Experiences as a Result of Constructing the Proposed Water Conveyance Facilities."</p> <p>Chapter 15 of the EIR/EIS includes impacts analyses on every recreation area within the 1,200-1,400-foot noise and visual buffer of construction locations considered under every action alternative.</p> <p>For recreational activities on lands under lease agreements with DWR, they are by a lease's nature, temporary. It would be speculative to assume that DWR would renew the lease past the existing lease end date.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>These actions are potentially connected, but there is no explanation in the EIS. By building the tunnels flush with an ecological reserve boundary it is inevitable that the construction, maintenance, and the close placement itself will cause adverse effects with the reserve. These effects could move through other areas in the Delta. Impacts in the ecosystem that fall outside the Plan area are further examples of connected actions that must be analyzed in the cumulative effects. The Draft EIR/EIS assumes that the impacts will and can be confined to where public access is not directly permitted. The Draft EIR/EIS's assumption fallaciously dismisses a necessary cumulative impacts analysis regarding the potential of effects on adjacent recreation.</p> <p>The Draft EIR/EIS did not conduct impacts analysis on certain recreation areas due to an alleged lack of sufficient data modeling long-term usage. According to NEPA, an EIS must analyze the cumulative effects resulting from the connected actions of past, present and "future actions regardless what agency...or person undertakes such other actions." 40 C.F.R. [Section]1508. Inconsistent with NEPA's regulation, the Draft EIR/EIS relies on current lease agreements for access in its decision that this data allows them to circumvent a cumulative impact analysis: "[A]ccess to these parcels is subject to lease agreements with DWR. Due to the nature of these lease agreements, these activities could not reasonably be expected to continue for the long-term with any definitiveness..." (EIR/EIS,15.3.3.9). This reliance on third party leases as a baseline for neglecting to incorporate an analysis for these recreation areas violates NEPA's cumulative impact standard for connected actions that contribute to an aggregated impact. 40 C.F.R. [Section]1508.7. Moreover, the Draft EIR/EIS must incorporate "future actions regardless what agency ... or person undertakes such other actions." 40 C.F.R. [Section]1508. In the missing analysis, the Draft EIR/EIS needs to elaborate on the "nature of the lease agreements". There is no inclusion of any studies on lease behavior in past years even though these trends would be indicative of future behavior that can show whether these facilities should be treated as "well-established recreational facilities". Id. The Draft EIR/EIS must account for past, present and foreseeable future actions and subsequent effects. But there is no such analysis, and the Draft EIR/EIS is relying on assumptions and conclusions.</p> <p>Despite the proposition that there will be effective mitigation measures that reduce the impact on recreation activities and revenue for Delta businesses, the Draft EIR/EIS assumes that "the location of the proposed water conveyance facilities... would not cause adverse effects...". (EIR/EIS,15.3.3.9). This statement is misleading at best and apposite to NEPA requirement to provide a fully developed analysis of the cumulative affects based on the "hard look" guideline that requires more than generalized statements. 40 C.F.R. [Section] 1508.7.</p>	
1611	59	<p>CEQA Violations:</p> <p>CEQA regulations state that: "[A]n EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." 40 C.C.R. [Section]15130(a). Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." 40 C.C.R. [Section]15355. Specifically, CEQA defines cumulatively considerable as "the incremental effects of an individual project are significant when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects". 40 C.C.R. [Section] 15065(a)(3). The most important indicators are environmental changes resulting from "incremental impacts of the projects when added</p>	<p>Please see Master Response 9 regarding the cumulative impact analysis.</p> <p>In many cases, the resource-specific cumulative analysis is primarily qualitative and considers the contribution of the proposed project to other programs, projects and policies as identified in Appendix 3D, as well as assumptions for climate change and sea level rise. Appendix 5A describes how changes due to climate change and sea level rise were selected and integrated into the modeling in Section A.7, Climate Change and Sea Level Rise Scenarios. Chapters in which water-related impacts are more prominently discussed include a quantitative analysis of cumulative effects of the implementation of the proposed project including effects of climate change and sea level rise combined with qualitative assessments of other cumulative projects.</p> <p>As provided for under CEQA (14 CCR 15130[b]) and consistent with NEPA (40 CFR 1508.7), the analysis of</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>to other closely related past, present, and reasonably foreseeable probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." 40 C.C.R. [Section] 15355. CEQA compels the lead agency(s) to "identify ways that environmental damage can be avoided or significantly reduced" and assists to "[p]revent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible." Id. (Quoting Guidelines [Section] 15002(a)(2)-(3)).</p> <p>If the combined impact of the project is not significant then an EIR may only be required to provide a succinct explanation as to why the combined cumulative impact is insignificant: "[B]riefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant." 40 C.C.R. [Section] 15130(a)(2). Nevertheless, discussion of the cumulative impacts is still required to address the "severity of the impacts and the likelihood of occurrence." 40 C.C.R. [Section] 1530(b).</p>	<p>cumulative impacts is evaluated at a level of detail sufficient for the Lead Agencies to use as a reasonable basis for decision making in selecting between the alternatives.</p> <p>The Cumulative Impact Analyses that was written for the Draft EIR/EIS has been revised to include the impacts associated with the new proposed project alternatives and also updates past analyses. Environmental Commitments are to minimize effects to the Delta and its inhabitants and mitigate for loss of habitat to the ecosystem and its species. For more information please see the cumulative impact sections of Chapters 11 and 12 and Appendix 3B of the Final EIR/EIS.</p>
1611	60	<p>The Plan's narrow geographic scope unlawfully limits the analysis of effects. A cumulative impact considers the individual effects together as well as effects of past, current and future projects. However, the Draft EIR/EIS's limited scope of analysis focused directly on direct impacts and the proposed infrastructure prevents a proper, lawful cumulative impacts analysis. It is impossible to determine the incremental effects that contribute to a considerable cumulative effect when two significant bays are excluded, the San Francisco Bay and the San Pablo Bay. There are more than two individual impacts expected to affect these Bays if the new conveyance is implemented: "[I]mpacts to water quality, aquatic habitats, fish and wildlife, and estuarine dynamics" (Barbara Salzman). In addition, there will be changes in sedimentation in the Delta that is expected to cause effects outside the Plan area, as well as "tidal fluxes and salinity intrusion in the Delta" from the excluded Bays. (Randy Fiorini). The Draft EIR/EIS's narrow boundary prevents its scope of analysis and omits significant effect that will contribute to the cumulative impacts.</p>	<p>Since the time of the Draft EIR/EIS, analyses of alternatives effects on areas downstream of the Plan Area in the San Francisco and San Pablo bays were included in the EIR/EIS for Chapter 8, Water Quality, and Chapter 11, Fish and Aquatic Resources. These analyses indicate that potential effects on water quality and fish species in the San Francisco and San Pablo bays would be less-than-significant. Please refer also to Master Response 14, which addresses the analysis of San Francisco Bay water quality effects.</p>
1611	61	<p>The Draft EIR/EIS's lack of focus on dredge tunnel muck operations excludes the cumulative impacts of the removal of excavated material. There are "two or more individual effects listed above, but the Draft EIR/EIS does not adequately analyze these considerable, incremental effects. Impacts from the dredging include but not limited to adverse effects to air quality, a substantial increase in greenhouse gas emissions from large construction vehicles removing the tunnel muck twenty-four hours a day, seven days a week, and further emissions from the power and energy used to for excavation and removal. Furthermore, the Draft EIR/EIS fails to contextualize these effects on the environment resulting from excavation and removal. The Draft EIR/EIS unlawfully skims over the connection between "effects of the past projects, the effects of other current projects, and the effects of probable future projects". 40 C.C.R. [Section] 15065(a)(3). The most important indicators are environmental changes resulting from "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." 40 C.C.R. [Section] 15355. At most, the Draft EIR/EIS offers a cursory reference regarding the required construction and the unavoidable impact on the environment: "Site selection...such as locations within 10 miles of construction feature would minimize truck travel to help address air quality effects [and] implementing a construction equipment exhaust reduction plan...would also help reduce adverse effects." (EIR/EIS, 31.5.1.4). Not only are these mitigation proposals weak on their face, but this brief statement blatantly violates CEQA's</p>	<p>The air quality and greenhouse gas (GHG) analysis is based on estimates of equipment and vehicle activity (e.g., operating hours per day) required to construct the water conveyance facility. Materials and earthwork quantities associated with construction were also estimated, including all borrow, excavated, and dredged soil. All equipment and vehicles required to transport and process materials on the construction site are therefore included in the air quality analysis. Likewise, vehicles used to transport material and equipment to the construction are also analyzed and included in the air quality and GHG impact analysis.</p> <p>As discussed in response to Comment 1611-55, once tunneling is complete, top soil will either be placed or the material may be transported to final disposal sites. Because the final disposal sites have not been identified and the timing and location of potential RTM uses is unknown, the EIR/EIS analyzes impacts assuming all material will remain onsite. The process for determining disposal, storage, and reuse of RTM, if required, is described in Appendix 3B, Environmental Commitments of the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>statement to provide a full analysis of projected cumulative impacts resulting from tunnel dredging over a period of time. While the Draft EIR/EIS offers an initial muck removal to sites ten miles away, they fail to address the long-term impacts of storage, transportation, or greenhouse emissions. The Draft EIR/EIS makes no mention of transporting the muck to a final destination, let alone how far this destination might be from the excavation. The lack of analysis of the probable extensive transportation over a period of time undermines CEQA regulations. The brief and unfocused discussion of the dredging impacts breaches CEQA's determination for cumulative impact studies when there are considerable, connected and incrementally significant impacts on the environment.</p> <p>The Draft EIR/EIS's focus on its proposed benefits from reusing the tunnel muck results is an insufficient analysis under CEQA of the adverse effects from excavation and removal. The Draft EIR/EIS's alleged reusability and optimistic benefits from the tunnel muck is an assumption: "[Selected reuse strategies, implementation of spoils, Reusable Tunnel Material, and dredged material reuse plans could result in beneficial effects associated with flood protection and response, habitat creation, and depth to groundwater in areas where the ground level is raised." (EIR/EIS, 31.5.1.4). There is no detailed discussion of how these "reuse strategies" and implantation plans would operate. There also lacks detail regarding the specific outcomes of these proposals. Further, the Draft EIR/EIS avoids discussions of alternative scenarios where the "tunnel muck" cannot be reused and omits any discussion of associated costs. The Draft EIR/EIS contains the assumption that there is no significant impact from the dredging prompts CEQA's requirement for a succinct explanation as to why the combined cumulative impact is insignificant and must "identify facts and analysis supporting the lead agency's conclusion..." 40 C.F.R. [Section]15130(a)(2). But there is no discussion or reference to this effect. Therefore, the Draft EIR/EIS assumes the benefits of reusing the dredged material but violates CEQA's requirement for a succinct statement explaining why there is no discussion supporting this assumption.</p>	
1611	62	<p>The Draft EIR/EIS side steps the issue of operational impacts to upstream reservoir operations by asserting the assumption that the data is too speculative to make provide any analysis. If an agency deems a project's impact insignificant, CEQA demands that there is at least a presentation of facts and analysis that supports that decision. This is to ensure a discussion of the "severity of the impacts and likelihood of occurrence." 40 C.F.R. [Section]15130(b). The Draft EIR/EIS's passing mention of climate change and fluctuations in precipitation is a severely inadequate attempt to satisfy CEQA's requirements. The Draft EIR/EIS needs to provide a more detailed analysis, either to show the impacts are insignificant or to explain the impacts upstream as a result of implementing new infrastructure.</p>	<p>As described in response to Comment 1611-47, it would be speculative to consider future changes to reservoir operations in response to climate change and sea level rise. Those changes in reservoir operations criteria would only occur following detailed analyses, including project-specific CEQA and NEPA analyses, if appropriate. Following adoption of changes to reservoir operations criteria, DWR and Reclamation would need to determine if changes in the SWP and CVP operations would be necessary. Changes in flows in the Sacramento, Feather, and American rivers and the SWP and CVP reservoirs on those rivers under the action alternatives as compared to the Existing Conditions indicate the changes that would occur due to implementation of the alternatives and due to climate change and sea level rise (see Appendix 5A, Section C, in the EIR/EIS).</p>
1611	63	<p>The Draft EIR/EIS underestimates the cumulative impacts of the project on recreation-based commerce in the Delta. CEQA dictates that when "two or more individual effects, which when considered together, are considerable" are significant and must be considered together. 40 C.F.R. [Section] 15355. However, the Draft EIR/EIS underrates the individual effects on Delta recreation from construction and maintenance of the new conveyance that will be forty-feet wide, thirty-five miles long, and one hundred feet deep. The construction alone will be hugely disruptive to daily life in the region. But the Draft EIR/EIS ignores the interruption of daily commerce in the Delta region and fails to accurately evaluate all the impacts of the project. There is no analysis that sufficiently includes the economic impact to businesses and families in the Delta region that will be affected by this invasive project. Further, the analysis must include the conveyance "in connection with the effects of the</p>	<p>Since 2006, the proposed project and other action alternatives have been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings.</p> <p>Economic effects on recreation as a result of the proposed BDCP are described in Chapter 16, Socioeconomics, in Section 16.1.1.6, Economic Character of Recreation in the Delta, of the EIR/EIS. Cumulative effects are analyzed at the end of each chapter of the EIR/EIS, including Chapter 15, Recreation, and Chapter 16, Socioeconomics.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>past projects, the effects of other current projects, and the effects of probable future projects." [Section] 15065(a)(3). The Draft EIR/EIS does not follow CEQA's guideline here as it states the timeline for construction of the conveyance. The temporary projection of two years or less suggests that loss of recreation will pace the temporary construction projections. (EIR/EIS, 15.3.3). However, there is no analysis connecting the effects of "temporary" construction to past effects, other current project, or effects of future projects. Moreover, the Draft EIR/EIS neglects to discuss the likelihood or severity of effects to Delta recreation that may continue past the cessation of the construction timeline. The Draft EIR/EIS is not in accord with CEQA and must be amended.</p>	
1611	64	<p><b>FAILURE TO DISCLOSE NECESSARY WATER TRANSFERS:</b></p> <p>A) Summary:</p> <p>Omitted from the BDCP, but documented elsewhere, is the intent to add 1.3 million acre feet of "new" Delta outflow water, which would be made possible by mining the declining groundwater aquifers of the Northern Sacramento Valley's Colusa groundwater subbasin. The environmental and economic implications are great, yet they have not been analyzed anywhere in documentation associated with the BDCP, as required by CEQA and NEPA.</p> <p>B) Background:</p> <p>The BDCP's success in achieving its conservation measures relies on adequate water flowing through the Delta. In order to achieve this, Plan proponents have advocated for increased water transfers north of the Delta that will meet the flow requirements of the BDCP, to be sold to buyers south of the Delta. The specific increased exportation of water from the Delta is left out of BDCP documents that have been released for public review, yet referenced repeatedly by the proponent agencies in documents obtained through PRA and FOIA requests. (See E-mail from Lety Belin; e-mail from David Beard; KCWA, Voluntary Water Acquisition Program; Supplemental Water Purchase Concept; all on file with author).</p> <p>The internal planning process for the BDCP discusses purchasing additional water supplies, referencing the water as "enhanced environmental flows," and the money used to buy the water as a "supplemental adaptive management fund." (E-mail from David Beard, KCWA, to Urban Bakersfield Committee, Oct. 23, 2013, on file with author; Draft Implementing Agreement, 10.3.7.3.2, 37). These euphemisms refer to the BDCP proponents' plan to purchase up to 1.3 million acre feet (maf) of water, which will be transferred through the Delta and make up for the decreased flows of the Sacramento River that are a result of the new intake diversions. (E-mail from Lety Belin, Senior Counsel to the Deputy Secretary at Department of the Interior, Feb. 25, 2012, on file with author). The funding for these transfers will come from private water agencies as well as state and federal governments. (E-mail from David Beard, KCWA to Urban Bakersfield Committee, Oct. 23, 2013, on file with author). Correspondence between the Department of the Interior, DWR, and CDFW dating back to 2012 indicates that the BDCP proponents expect the extra water will be paid for by the public through the state water bond, now slated for the 2014 ballot. The contractors receiving the water would then expect to be able to turn around and sell the water for a profit. (E-mail from David Beard, KCWA, to Urban Bakersfield Committee, Oct. 23, 2013, on file with author).</p> <p>The water transfers would be completed through surface water purchases from water rights holders north of the Delta. The surface water must then be supplemented through</p>	<p>Ongoing operations of the SWP and CVP are not water transfers, and involve re-diversion of water rights water diverted from upstream rivers. In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS), the Existing Conditions, No Action Alternative, and all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The Proposed Project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation.</p> <p>The SWP and CVP operations do not include use of water generated from groundwater or by groundwater substitution.</p> <p>The EIR/EIS also acknowledges that the use of water transfers between agencies could increase in the future as SWP, CVP, and other surface water supplies are reduced due to climate change, sea level rise, and increased water demand in the Delta watershed, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Because specific agreements have not been identified for water transfers and other non-project voluntary water market transactions, project level analysis of impacts upstream of the Delta is highly speculative and this EIR/EIS does not constitute the CEQA/NEPA coverage required for any specific transaction. Rather, it provides an analysis of how transfers relate to the Proposed Project facilities. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to separate laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>groundwater substitutions or fallowing. The groundwater pumping will impact the Sacramento Valley Aquifers, the Sacramento River, the surrounding area, and several species of waterfowl, yet these specific transfers and their resulting actions have not been identified in the BDCP documents.</p> <p>These water transfers are necessary to the BDCP to meet certain flow requirements. The EIR acknowledges that "demands for supplemental water supplies...will increase." BDCP Plan, Ch. 5, Water Supply, p. 5-61. The desire for an extra 1.3 maf, the ongoing water bond fight in the Capitol, in which Plan proponents are attempting to secure language ensuring funding for these transfers, and the inclusion of phrases like "supplemental adaptive management fund" in BDCP documents are all further evidence that Plan proponents recognize they will need this extra water for the BDCP to succeed. (Email from Lety Belin, on file with author; (IA, 10.3.7.3.2, 37; Governor's Office Water Bond, 10, 79736 (a)(1); Supplemental Water Purchase Concept). However, no further discussion of the location, duration, or impacts of these transfers are included in any BDCP documents.</p>	
1611	65	<p>The Sacramento Valley Hydrologic system provides a vast amount of water throughout the Delta and California. Groundwater contributes to about 31% of total water supply, but that percentage can jump substantially in drought years like the one California is experiencing now, when surface water availability is drastically reduced. (DWR 2005, Megdal et al. 2009). The groundwater levels in the Sacramento River Hydrologic Region have been dropping recently, with 30-foot declines seen in the northwestern portion of the Sacramento Valley Groundwater Basin. (California Water Plan Update, Sac. River Hydrologic Region Summary, SR-1). There are already groundwater pumping effects being felt across the Sacramento Valley. Land subsidence associated with groundwater withdrawal in the Sacramento River region has been documented in the southern portion of the Sacramento Valley, and as groundwater levels decline, the potential for land subsidence increases. (California Water Plan Update, Sac. River Hydrologic Region Summary, SR-13).</p>	<p>This comment is consistent with the description of Existing Conditions presented in Chapter 7, Groundwater, of the EIR/EIS.</p>
1611	66	<p>Scientific modeling experiments have shown that large-scale pumping for water transfers in the Sacramento Valley can negatively affect water table elevations over a large area, including drawdowns and the inability of the aquifer to rebound back to pre-pumping conditions. (Kyle Morgado, Effects of Groundwater Pumping for Water Transfers, p. 79). The Colusa Subbasin, located in the Glenn Colusa Irrigation District, has been highlighted in a DWR report as the source of increased groundwater pumping to satisfy replacing surface water transfers. (DWR, CASGEM Groundwater Basin Prioritization, Table A-4). However, the subbasin is already experiencing severely declining groundwater levels along the west side of Glenn County, and moderately declining groundwater levels in the Capay area. (DWR, CASGEM Groundwater Basin Prioritization, Table A-4). Pumping more water from an area that is already experiencing lower groundwater levels will further reduce water availability and the aquifer's capacity to recharge.</p>	<p>The portion of this comment related to the Colusa Basin is consistent with the description of Existing Conditions presented in Chapter 7, Groundwater, of the EIR/EIS.</p> <p>As described in Chapter 3, Description of Alternatives, the action alternatives considered in the EIR/EIS do not include water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers and in accordance with State and Federal laws and regulations, as described in Appendix 1E, Water Transfers in California: Types, Recent History, and General Regulatory Setting, and Appendix 5D, Water Transfer Analysis Methodology and Results, of the EIR/EIS. Because specific agreements have not been identified for water transfers and other non-project voluntary water market transactions, project level analysis of impacts upstream of the Delta is highly speculative and this EIR/EIS does not constitute the CEQA/NEPA coverage required for any specific transaction. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	67	<p>The BDCP Parties request a fifty-year permit. Fifty years of pumping up to 1.3 maf of groundwater to replace surface water transfers will impact the Sacramento River. The</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Sacramento River is considered a flow-through system, meaning pumped groundwater not consumptively used returns to the river. (Northern California Water Association, Water Conservation and Efficiency in the Sacramento Valley, p. 2). However, increases in groundwater extraction can reduce or even reverse groundwater seepage from aquifers to the Sacramento River, leading to lower Sacramento River flows. (Karin Hoover, Aquifer Performance Testing Concerns, p. 3). This would directly affect the BDCP's outflow scenarios, which contemplate high diversions of river flows. Lower flows would negatively impact protected fish species that require certain flow levels to maintain their populations. Reverse flows from the Sacramento River into groundwater aquifers could even end up being pumped into domestic wells. (Karin Hoover, Aquifer Performance Testing Concerns, p. 3).</p>	<p>in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	68	<p>These water transfers are not mentioned or described in any environmental document included in the BDCP; however, it is clear that Plan proponents realize they need the transfers to implement the BDCP. Although the transfers are not described throughout the BDCP, the funding and necessity of the transfers is made clear through the emails obtained through Freedom of Information Act/Public Records Act requests, as well as the Implementation Agreement, which references a "supplemental adaptive management fund." (IA, 10.3.7.3.2, 37). Plans for this 'supplemental' fund are written broadly in order to be used for other projects, such as funding a portion of the water transfer cost. Plan proponents are willing to ensure they will have adequate funding for these water transfers, yet have not disclosed the breadth of these water transfers, nor the likely effects of groundwater pumping.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E, Appendix 5D, and Chapter 31 of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>The cited text included in this comment was part of the draft Implementation Agreement Please see Master Response 5.</p>
1611	69	<p>Currently, the amount of water proposed to be transferred is 1.3 million acre feet- however, this amount could easily be expanded by decision-making parties in the BDCP. The approval of the BDCP would allow the authorized parties to not only pump up to 1.3 million acre-feet of substitute groundwater from the Sacramento Valley aquifers for the next 50 years, but to also possibly increase their level of pumping if more water is needed. The specifics of these water transfers, as well as the resulting impacts, need to be disclosed in the appropriate BDCP documents.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	70	<p>Negative Third Party Impacts:</p> <p>With up to 1.3 million acre-feet of surface water being transferred and decreasing groundwater levels, it is possible that some proportion of the water transfers might be effectuated through fallowing. The flooded conditions of rice fields that are beneficial to famers are also necessary to many species of waterfowl. Around 7 million birds use the Pacific Flyway, which encompasses the Sacramento Valley. (CH2M HILL Report for Northern California Water Association, 2011 p. 8). Rice acreage provides about 60% of all food for wintering waterfowl in the Sacramento Valley, and supports 230 species, of which 31 are considered species of special concern by the conservation community. (CH2M HILL Report for Northern California Water Association, 2011 p. 8). Fallowing more rice acreage will only</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers, including water transfers that would result in crop idling or groundwater substitution. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>result in reduced habitat and food availability for these migratory waterfowl. Following more land can also lead to economic and employment impacts associated with the local agriculture industry. This past year, rice farmers have had to fallow 100,000 acres, almost 20% of last year's rice acreage, to deal with the drought. (Edward Ortiz, Drought's Latest Effect?, Sacramento Bee 2014). It is foolish to think California will not experience another drought cycle like the one we are experiencing now; and as the water transfers take 1.3 maf every year, the reduced water supply could result in much heavier economic costs to local business and employment.</p> <p>Those who are not party to these new water transfers will likely also feel a negative economic impact. With more water being pumped and moved south of the Delta, there will be less available for those who rely on individual wells and groundwater pumping for their water supply. Several towns and small cities are entirely dependent upon groundwater for drinking water; these areas could be negatively impacted with groundwater substitution pumping up to 1.3 maf from the aquifers. Non-contracting parties who may be affected by groundwater depletion need to have a say into the management process, since these water transfers will almost certainly limit the amount of groundwater they are able to pump themselves.</p>	<p>to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	71	<p>These water transfers and their effects have not been evaluated or in the Draft BDCP. The failure to discuss these transfers violates the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). Proponents violated CEQA by failing to provide a full description of the project, impermissibly piecemealing the project, and failing to adequately describe the project's impacts. Furthermore, the failure to adequately describe the project and its impacts violate NEPA.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	72	<p>As federal law, NEPA requires an environmental impact statement of all major federal actions significantly affecting the quality of the human environment. 42 U.S.C. [Section] 4332(2)(C). Courts have defined the term "federal action" broadly to include not only projects directly carried out by federal agencies, but state and local programs funded by federal assistance and private development authorized by federal permits as well.</p> <p>In order to satisfy NEPA, an agency needs to properly and thoroughly evaluate the environmental impacts of a proposed project. Laguna Greenbelt, Inc. v. U.S. Dept. of Transp. 42 F.3d 517, 527 (9th Cir. 1994). An EIS must "properly define" the project in order to alert the public of the agency's intentions and give the public enough information to foster intelligent public participation. 40 C.F.R. [Section] 1502.4(a); State of Cal. v. Block, 690 F.2d 753, 772 (9th Cir. 1982). Furthermore, "to prevail on a claim that [a federal agency] violated its statutory duty to prepare an EIS, a plaintiff need not show that significant effects will in fact occur;" it is enough to raise substantial questions whether significant effects on the environment may occur. Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1997).</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p> <p>The EIR/EIS is prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document is intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	73	<p>The nondisclosure of the water transfers represents a violation of NEPA because these transfers and the subsequent groundwater substitutions/fallowing will have environmental impacts that have not been evaluated or disclosed to the public. The federal agencies failed to adequately identify and evaluate significant adverse impacts of the water transfers in the DEIS. The project has not been properly defined; therefore the public has not been alerted to the agency's true intentions, and public participation has suffered as a result. The water transfers are necessary to the BDCP's success on providing adequate flows through the Delta, and the effects of these transfers need to be described in adequate detail in order to be evaluated properly. Potential impact include subsidence and lowered water tables as a result of the groundwater substitutions or fallowing that will likely take place.</p> <p>Under NEPA, an EIS must include information on the affected environment, as well as "every significant aspect of the environmental impact of a proposed action." Or. Natural Desert Ass'n v. Bureau of Land Mgmt., 625 F.3d 1092, 1109 (2008). The federal agency must analyze foreseeable environmental impacts, including the direct and indirect effects of the project and their significance. 43 C.F.R. [Section] 1502.16; City of Davis v. Coleman, 521 F.2d 661, 676 (9th Cir. 1975). The evaluation of impacts must use high quality information and accurate scientific analysis. 40 C.F.R. 1500.1(b).</p> <p>Plan proponents violated NEPA by failing to adequately disclose impacts to the Sacramento Valley area. No information on the water transfers has been included in their DEIS, and the direct and indirect effects on the environment have also not been disclosed or analyzed. Surface water that is sold south of the Delta will have several consequences in the Sacramento Valley region because the water will have to be substituted by either increased groundwater pumping or fallowing. This will have direct consequences on the surrounding water aquifers, the Sacramento River, and several species of birds and fish. The groundwater substitutions or fallowing will also have economic impacts on local towns and agriculture. These actions are all foreseeable as it is evident Plan proponents need this water for the BDCP to work properly. However, none of this has been analyzed or included in the Draft Environmental Impact Statement, which represents a violation of NEPA's requirements to adequately describe the foreseeable impacts.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p> <p>Information about the effects of water transfers on groundwater is discussed in Chapter 30 Growth.</p>
1611	74	<p>CEQA applies to most public agency decisions to carry out, authorize, or approve projects that could have adverse effects on the environment. The term 'project' refers to the "whole of an action, which has a potential for resulting in...a reasonably foreseeable indirect physical change in the environment." CEQA Guidelines [Section] 15378(a). Case law has resulted in the definition of "project" receiving broad interpretation in order to maximize environmental protection. McQueen v. Bd. of Directors of the Mid-Peninsula Reg'l Open Space Dist., 202 Cal.App.3 1136, 1143 (1988). Before making a decision, CEQA requires the agencies to consider all relevant information and avoid or reduce significant environmental impacts when feasible. Pub. Resources Code [Section] 21000. The agency's decision must then be supported by "substantial evidence," defined as "relevant, reasonable information and inferences that a fair argument can be made to support a conclusion." CEQA Guidelines [Section] 15384(a).</p> <p>CEQA requires the project description to include the precise location and boundaries of the proposed project, as well as a statement of objectives and a general description of the proposed project's technical, economic, and environmental characteristics. CEQA Guidelines [Section] 15124(a-c). Describing the entire scope of the project is necessary for accurate and informative public evaluation and input, which has been held to be a vital part of satisfying</p>	<p>For more information regarding project and program level analysis please see Master Response 2.</p> <p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>CEQA. City of Santee v. Cnty. of San Diego, 214 Cal.App.3d 1438, 1454 (1989). The public review process is distorted and fails to inform public decision-makers without an accurate project description. Cnty. of Inyo v. City of Los Angeles, 71 Cal.App.3d 185, 192-93 (1977). The failure to include relevant information, including an accurate project description by the agency is prejudicial error if it "precludes informed decision-making and informed public participation. Rialto Citizens for Responsible Growth v. City of Rialto, 208 Cal.App.4th 899, 925 (2012).</p>	
1611	75	<p>The BDCP's DEIR needs to include these water transfers in their analysis; the failure to do so is a violation of CEQA's requirements to adequately describe the project. These water transfers will take place in the Sacramento Valley, and the groundwater transfers will take place in the Sacramento Valley Hydrologic Region; neither area has been included in the BDCP description. The Draft BDCP &amp; DEIR/DEIS fail to provide a sufficient EIR project description because the project's location and boundaries do not encompass the proposed transfer areas, nor the aquifers where groundwater will be pumped from. The failure to include these water transfers and groundwater substitutions in any documents results in a violation of CEQA's requirements to provide an accurate and complete description. Furthermore, this error by the agency is prejudicial because it has prevented informed public participation by hiding important details about the BDCP's intent to increase water transfers and groundwater substitution or following in the Sacramento Valley. Public participation and comment is essential to informed decision-making, and the BDCP has violated CEQA by failing to include these water transfers in public documents. As a matter of law, the DEIR's failure to adequately describe the project violates CEQA's procedures by preventing the public's ability to meaningfully consider or comment on these potential adverse impacts.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	76	<p>CEQA prohibits piecemealing projects into smaller pieces, in which it may be easier to find there is no significant environmental effect. El Dorado Cnty. Taxpayers for Quality Growth v. Cnty. of El Dorado, 122 Cal.App.4th 1591, 1599 (2004). Piecemealing impermissibly results in a curtailed project description, which allows the EIR to misstate the cumulative impacts "by separately focusing on isolated parts of the whole." San Joaquin Raptor/Wildlife Rescue Center v. Cnty. of Stanislaus, 27 Cal.App.4th 713, 729-30 (1994). Project descriptions must include integral parts of the project; otherwise their omission would result in important ramifications remaining hidden from public review. Santiago Water Dist. v. Cnty. of Orange, 118 Cal.App.3d 818, 830 (1981).</p> <p>Additionally, future phases or consequences of a project need to be assessed in the initial DEIR if: "(1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project of its environmental effects." Laurel Heights Improvement Ass'n v. Regents of the University of Cal., 47 Cal. 3d 376, 396 (1988). However, plans that do not contemplate additional parts of the project need not disclose possible future developments. Rio Vista Farm Bureau Ctr. v. Cnty. of Solano, 5 Cal.App.4th 351, 371 (1992).</p> <p>Here, the BDCP documents do not include information and analysis of these water transfers in any of their documents. This violates the piecemealing prohibition of CEQA because the proponents have avoided reviewing the environmental effects of these transfers. These water transfers will have significant environmental impacts on the Sacramento Valley Hydrologic region, yet nothing has been disclosed. The cursory attention paid to environmental impacts relating to water transfers in Chapter 30 of the DEIR does not</p>	<p>Please see Master Response 8 which provides additional information on how the project was evaluated as a whole..</p> <p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>actually discuss the specific water transfers that are being proposed to maintain adequate flows through the Delta. Draft EIR, 30.3.6, 117. These specific water transfers have been left out of all BDCP environmental documents. Plan proponents' decision to defer any evaluation of the possible impacts of these water transfers until after project approval is piecemealing, and constitutes a procedural violation of CEQA.</p> <p>Furthermore, this is not a "tiering" situating where future project EIRs would be appropriate. The water transfers satisfy both prongs of the Laurel Heights test: they are reasonably foreseeable consequence of the BDCP because Plan proponents know they will need additional water to satisfy flow requirements, and these transfers will likely change the initial project's environmental effects. The need for these additional transfers is recognized in the Implementing Agreement's Supplemental Adaptive Management Fund, where parties "anticipate that such funds could be used to acquire water to supplement flows." (IA, 10.3.7.3.2, 37. When "additional outflow [is] determined to be necessary," the fund can be used to buy "supplemental water" from "voluntary sellers." (IA, 10.3.7.3.2, 37. This language represents an admission that additional water will be needed to meet outflow requirements under the BDCP. These transfers are not merely possible future developments, they are a contemplated and necessary part of the BDCP. Furthermore, the transfers will also expand the scope of the initial project's environmental effects because the groundwater substitutions and fallowing will have different impacts than what the BDCP has chosen to disclose.</p>	
1611	77	<p>An agency must prepare an EIR that provides enough environmental analysis to give decision-makers with sufficient information to adequately consider environmental impacts of a proposed project in order to satisfy CEQA. <i>Cnty. of Inyo v. City of Los Angeles</i>, 71 Cal.App.3d 185, 192093 (1977). CEQA requires EIRs to identify a project's significant effects on the environment, identify alternatives, and indicate the manner in which those effects can be mitigated or avoided. Pub. Resources Code [Section] 21002.1. CEQA Guidelines require "direct and indirect significant effects of the project on the environment" to be "clearly identified and described, giving due consideration to both the short-term and long-term effects. This includes the significant "irreversible environmental changes which would be caused by the proposed project should it be implemented." CEQA Guidelines, [Section] 15126.2 (a) &amp; (c).</p>	<p>The EIR/EIS IS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This Final EIR/EIS is intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy.</p> <p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>
1611	78	<p>Plan proponents have failed to disclose these water transfers to the public, thereby avoiding all required discussion of the environmental impacts. These water transfers will have to be supplemented through groundwater substitutions, fallowing, or a combination of both. These actions will have impacts on the surrounding Sacramento Valley Hydrologic region, such as land subsidence, lower water table levels, and decreased water availability. The Sacramento River could also be negatively impacted, which would have multiple effects on surrounding bird and fish species. Fallowing too will have negative environmental impacts on the habitat and food availability for several protected species in the Sacramento Valley area. However, none of these impacts have been disclosed to the public in the BDCP environmental review documents, much less adequately described. This is another violation of CEQA's requirements.</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	79	<p>It is clear that the BDCP proponents need these water transfers to go through the Delta to</p>	<p>The action alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>satisfy flow requirements. Without these transfers providing water passing through the Delta as it is sold down south, the whole idea put forth by the BDCP of maintaining Delta flow would fail. The necessity of these water transfers is evidenced by the ongoing water bond fight, in which Plan proponents are making sure enough money is secured in the language of the water bond to facilitate these transfers, and the inclusion of phrases like "supplemental adaptive management fund" in BDCP documents. (IA, 10.3.7.3.2, 37.</p> <p>The BDCP proponents have strategized to put forth a "conservation plan" which actually will give them the ability to sell 1.3 maf of surface water from the Sacramento Valley and transfer it south of the Delta to water contractors, who can then sell the water for a profit. The water loss in the Sacramento Valley area will then be substituted through extra groundwater pumping and/or fallowing. Meanwhile, none of the various impacts and concerns have been studied, much less made public knowledge. There are several significant possible impacts that need to be analyzed and evaluated before the BDCP is pushed through and parties are allowed to pump even more water from an area that is already experiencing declining groundwater levels. None of the possible effects outlined above from this proposed water transfer have been studied, or if they have, have not been released to the public.</p> <p>This represents a violation of CEQA and NEPA. Both require an adequate description of the project to be implemented, as well as a full disclosure of the impacts. The BDCP has not given a full description of their project because they have not included the water transfers, and the likely groundwater substitutions/fallowing, in the project description. Similarly, they have not disclosed all the environmental impacts that will result from these water transfers. There are severe consequences that have not been disclosed or described, which represents a violation of CEQA and NEPA.</p> <p>The Sacramento Valley Hydrologic Region represents a vast resource for water, but the transfers being put forth in secret do not show a dedication to sustainable and reasonable management of the groundwater. Allowing the transfers to go forward could result in the decimation of groundwater levels that would have long-lasting negative impacts. This water grab is an underhanded attempt by BDCP proponents to take even more water than what is listed in the BDCP documents, and there needs to be a careful evaluation and assessment of the region before the BDCP becomes a reality for California for the next 50 years.</p>	<p>acknowledges that water transfers would continue in a similar manner as historic transfers or could increase in frequency and volume, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to laws and regulations once the specific transfer has been proposed. Please see Master Response 43.</p> <p>In the description of alternatives as presented in Chapter 3 of the Final EIR/EIS, the increased Delta outflow would be provided by reduction in Delta exports in Alternative 4A and a combination of reduction in Delta exports and releases from Lake Oroville under Alternative 4 H4. Under either of these alternatives, deliveries to water users north of the Delta would increase or be similar as under Existing Conditions, and similar as under the No Action Alternative. Therefore, groundwater pumping in the Sacramento Valley would not increase due to the Project. The increased Delta outflow would not be provided by increased groundwater pumping or water transfers in the alternatives presented in the Final EIR/EIS.</p>
1611	80	<p>The Draft EIS/EIR is so deficient that it precludes meaningful analysis.</p> <p>The Draft EIS/EIR cannot pass muster under NEPA or Endangered Species Act (ESA) because it does not have adequate information to contribute to a "meaningful analysis." NEPA requires that "Impacts shall be discussed in proportion to their significance." 40 C.F.R. [Section] 1502.2(b). NEPA specifically includes impacts on "ecologically critical areas"; effects that are likely to be highly controversial; the "degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical"; and whether "the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment as factors in evaluating significance." 40 C.F.R. [Section] 1508.27(b)(3), (4), (9) and (10). The BDCP Water Tunnels alternative easily satisfies these categories, as the Tunnels threaten the extinction of fish species listed as endangered or threatened and will adversely modify designated critical habitats by substantially reducing water and flows in the critical habitats.</p>	<p>Potential impacts of the Proposed Project and other action alternatives on fish and aquatic resources and terrestrial biological resources as compared to the Existing Conditions and No Action Alternative is presented in detail in EIR/EIS Chapters 11, and 12, respectively. These chapters include discussion of potential effects on listed and other species and habitat and provide mitigation measures to reduce impacts in cases where impacts are found to be adverse, under NEPA or significant under CEQA.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	81	<p>All federal agencies are required by NEPA to "make every effort to disclose and discuss at appropriate points in the draft [environmental impact] statement all major points of view on the environmental impacts of the alternatives including the proposed action." 40 C.F.R. [Section] 1502.9(a). Consequently, Reclamation, National Marine Fisheries Service, and U.S. Fish and Wildlife Service are required to disclose and discuss in the Draft EIS the point of view that DWR's preferred project -- the BDCP Water Tunnels -- threatens the extinction of the five listed fish species and would threaten to adversely modify the designated critical habitat for these listed fish species. Moreover, the agencies are required to disclose and discuss that the Water Tunnels would not be a permissible under the ESA if the formal ESA consultations including Biological Assessments and Biological Opinions fail to demonstrate that the Water Tunnels would not be likely to jeopardize the continued existence of any of the listed fish species or result in the destruction or adverse modification of the designated critical habitats of such species.</p> <p>Given the absence of Biological Opinions, or even Draft Biological Opinions and Biological Assessments, there is no lawful basis for the federal agencies to downplay or minimize the extinctions and adverse modifications of designated critical habitats threatened by the BDCP Water Tunnels. Under the ESA, the only way for federal agencies to reach conclusions as to jeopardy of species existence or adverse modification of critical habitats is through ESA consultation including preparation of Biological Assessments and Biological Opinions. In the absence of these required steps there is no basis for federal agencies to attempt to join with the exporters and DWR in their biased advocacy for the BDCP Water Tunnels.</p> <p>Regardless of whether these three federal agencies agree now with us that approval of the Water Tunnels would violate the ESA, their red flag comments and the Record so far have made it clear that there is significant uncertainty about whether the BDCP Water Tunnels project is permissible under the ESA. This will not be resolved until the Biological Assessments and Opinions have been prepared.</p> <p>A Draft EIS/EIR circulated prior to preparation and circulation of federal agency prepared Biological Assessments and Biological Opinions or at least Draft Biological Opinions will be "so inadequate as to preclude meaningful analysis," because the public and decision-makers will not have the basic federal agency analyses required by the ESA to determine whether DWR's preferred alternative -- the BDCP Water Tunnels -- is even a lawful alternative, let alone an environmentally acceptable alternative. 40 C.F.R. [Section] 1502.9(a).</p>	<p>The EIR/EIS discloses the effects of each alternative, including Alternative 4A (the Proposed Project), on species and their habitats. No decision on the EIR/EIS Record of Decision (ROD) will be made until ESA consultation is complete.</p> <p>The Proposed Project has been developed with the goals of minimizing and avoiding incidental take of listed species to the maximum extent practicable. Chapter 11, Fish and Aquatic Resources, and Chapter 12, Terrestrial Biological Resources, of the EIR/EIS, describe effects of the proposed project and several alternatives on fish and wildlife species in the Plan Area.</p> <p>Section 7 of ESA requires that federal agencies, in consultation with the federal fish and wildlife agencies, ensure that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat.</p> <p>Where the alternative does not include preparation of an HCP, ESA compliance for construction and operation of water intakes in the north Delta and associated conveyance facilities would be achieved solely through Section 7. For these alternatives, USFWS and NMFS would not issue a HCP permit and would not act as a lead agency for NEPA compliance. Where Section 7 is the ESA compliance strategy, USFWS and NMFS will assume roles as cooperating agencies for purposes of the NEPA review.</p> <p>Reclamation would be the lead federal action agency for Section 7 compliance where a non-HCP alternative is selected. Reclamation's Section 7 compliance would be expected to also address the Section 7 compliance needs for the USACE permit actions. In cooperation with DWR, Reclamation has prepared and submitted a biological assessment (BA) to USFWS and NMFS requesting formal consultation under ESA Section 7.</p> <p>A biological opinion is not required prior to the release of the EIR/EIS. For the Proposed Action, the USFWS and NMFS will conduct an internal ESA section 7 consultation prior to issuance of a 2081(b) permit for the Proposed Action by the CDFW. USFWS and NMFS will coordinate the ESA consultation process and other environmental review processes, such as the NEPA process, consistent with federal regulations. In addition, the USFWS and NMFS will consult with Reclamation to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project.</p>
1611	82	<p>The Draft EIS/EIR lacks required water quantity and water quality analyses. As set forth above in the "Alternatives" section of these comments, the BDCP process fails to base the preferred alternative on the State Water Resources Control Board flow recommendations made pursuant to the Delta Reform Act, nor does it await completion of the pending SWRCB proceedings developing updated flow objectives. Once the SWRCB concludes that process, Environmental Protection Agency will review and approve or disapprove any new or revised water quality standards pursuant to Clean Water Act [Section] 303(c). (EPA letter, EPA's comments on the Bay-Delta Water Quality Control Plan; Phase 1; SED, March 28, 2013). As the EPA noted, "[t]he benefits of increasing freshwater flows can be realized quickly and help struggling fish populations recover." (Id. at 1). By proceeding before the SWRCB has completed its Water Quality Control Plan Update, BDCP will not benefit from the analysis disclosed in this process. As is virtually always the case in the BDCP process, the cart has been placed before the horse. SWRCB flow determinations, water quantity and quality analysis, and public trust determinations must precede, not follow, BDCP decision-making.</p>	<p>As described in Section 3A.9.4.2 of Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, a potential alternative based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem was considered during development of the range of alternatives to be evaluated in detail in the EIR/EIS. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers, and without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to these water rights users.</p> <p>In addition, the 2010 report stated that "Any process with regulatory or adjudicative effects must take place through the State Water Board's water quality control planning, water rights processes, or public trust proceedings in conformance with applicable law. In the State Water Board's development of Delta flow objectives with regulatory effect, it must ensure the reasonable protection of beneficial uses, which may entail balancing of competing beneficial uses of water, including municipal and industrial uses, agricultural uses, and other environmental uses." Results from this report were considered in the development of</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Alternative 8 which is evaluated in the Draft EIR/EIS.</p> <p>Following completion of the updated Bay-Delta Water Quality Control Plan, SWP and CVP operations would need to be reviewed to determine if the operations continued to comply with the new regulations.</p>
1611	83	<p>The BDCP process has failed to conduct the water supply availability analysis, quantification, and analysis of the environmental impacts required under the CEQA as determined by the California Supreme Court's decision in <i>Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova</i>, 40 Cal.4th 412, 429, 430, 434, 440-441 (2007). Again, basic analyses essential to determine whether the BDCP Water Tunnels, DWR's preferred project, is even feasible will be absent. Just as an inadequate draft EIS violates NEPA, a draft EIR so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment are precluded violates CEQA. 14 Code Cal. Regs. [Section] 15088.5(a)(4).</p>	<p>In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation.</p> <p>As described in Section 3A.9.4.2 of Appendix 3A of the EIR/EIS, a potential alternative based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem was considered during development of the range of alternatives to be evaluated in detail in the EIR/EIS. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers, and without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to these water rights users.</p> <p>In addition, the 2010 report stated that "Any process with regulatory or adjudicative effects must take place through the State Water Board's water quality control planning, water rights processes, or public trust proceedings in conformance with applicable law. In the State Water Board's development of Delta flow objectives with regulatory effect, it must ensure the reasonable protection of beneficial uses, which may entail balancing of competing beneficial uses of water, including municipal and industrial uses, agricultural uses, and other environmental uses." Results from this report were considered in the development of Alternative 8 which is evaluated in the Draft EIR/EIS.</p> <p>For more information regarding water supply please see Chapter 5 of the FEIR/EIS.</p>
1611	84	<p>Dr. Peter Gleick, President of the Pacific Institute, and member of the U.S. National Academy of Sciences summarized several of the unanswered questions about the BDCP in his viewpoint published in the <i>Sacramento Bee</i> (November 6, 2013) entitled "Delta project has many unanswered questions." The unanswered questions include: how much water would the new system take out of the Delta, what would the infrastructure or the water it provides cost, who is going to pay for it, the lack of a cost-benefit study showing that the benefits of the water tunnels would exceed the cost, whether proposed ecosystem repairs and restoration would actually happen, what rules would govern the operation of the water tunnels and who would strictly monitor and enforce those rules, and what provisions would be put in place to change the operating rules as climate change increasingly alters water conditions. As Dr. Gleick says, "most scientists agree that a key to fixing the ecological problems of the Delta is to take less water out, not more."</p> <p>A critical example of missing BDCP analysis was pointed out by the Bureau of Reclamation: "The current BDCP analysis assumes no operational impacts to upstream reservoir operations." (Reclamation clarification added to federal agency comments July 16, 2013 p.1). In addition to inadequately analyzing effects upstream, the BDCP process is also lacking at the downstream end. "The BDCP omits any analysis of possible effects on San Francisco Bay ... As noted by the National Research Council review of BDCP in 2011: since BDCP aims</p>	<p>The Lead Agencies recognize that at the time Mr. Gleick's article was published in November of 2013 there were many questions about the Project and EIR/EIS that had yet to be answered publically. The Draft EIR/EIS that was released on December 13, 2013 provided answers to those important questions. The RDEIR/SDEIS provided updates and additional clarity on the questions posed by Mr. Gleick. Specifically, the Draft EIR/EIS provides a range of 4.7 to 5.6 million (total) acre feet that could be diverted using a dual conveyance facility comprised of the north Delta intakes and the existing south delta diversion facilities. The specific amount of water diverted each year would vary depending on hydrology and other factors, just as it does now. In some water years less water would be diverted from the Delta than today, while in other water years there would be more water diverted.</p> <p>The capital and operational costs of the proposed water delivery facilities would be paid for by the water users that would benefit from the facilities. More information about costs and funding is provided in Master Response 5.</p> <p>The operational permits for the overall conveyance will limit the amount and timing of water diversions from the Sacramento River. Limiting factors on water diversions will include physical facility limitations and operational criteria delineated in the operating permit that will consist of such things as the level in the river,</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>to address management and restoration of the San Francisco Bay-Delta, this is a significant omission that must be rectified." [Footnote 6: (Letter p.2, From Barbara Salzman, President, Friends of the San Francisco Estuary to Felecia Marcus, Chair, State Water Resources Control Board, October 30, 2013, <a href="http://friendsofestuary.weebly.com/comment-letters-from-friends.html">http://friendsofestuary.weebly.com/comment-letters-from-friends.html</a>).] Indeed, by reducing outflows from the Delta, the BDCP Water Tunnels would thereby reduce inflows into the Bay.</p> <p>To sum it all up, there are more unanswered than answered questions about DWR's preferred project, the Water Tunnels.</p>	<p>overall flow in the river, and other factors (described in the EIR/EIS Chapter 3,). More explanation about how the proposed project will be operated as proposed is provided in Master Response 28.</p> <p>For a discussion of potential upstream effects of the proposed 2013 draft BDCP, see Master Response 25.</p> <p>The BDCP Plan Area is defined by the boundaries of the legal Delta with the addition of the Suisun Marsh area. The EIR/EIS project area includes the Plan Area, upstream of the Delta region and the SWP and CVP export Service Areas because some of the effects of implementing the BDCP or its alternatives would extend beyond the BDCP Plan Area. The analysis in the EIR/EIS includes impacts to Delta outflows, which ultimately reach the San Francisco Bay. More information on how the San Francisco Bay was considered in the EIR/EIS are provided in Master Responses 14 and 17.</p>
1611	85	<p>There is a fundamental BDCP inaccuracy that was accepted at face value in the July 18, 2013 Release for federal agency comments that is profound. The Release states in pertinent part: "The Admin Draft reflects the significant downsizing of the proposed conveyance project that occurred in 2012 in direct response to federal and state wildlife agency comments. That downsizing includes a reduction in the number of intakes from 5 to 3, a reduction in the maximum diversion capacity from 15,000 to 9000 cubic feet per second (cfs), and a change to gravity-flow tunnels that would not require pressurization and additional pumping plants to move water." (Release, p.1, July 18, 2013).</p> <p>The intakes, though massive in size, are a comparatively small part of the proposed enormous water conveyance facilities. The two tunnels have actually increased in size from a proposed diameter of 33 feet in 2012 to what is now the Preferred Alternative, Alternative 4. Under Alternative 4, the two Tunnels would have an internal diameter of 40 feet and an external diameter of 44 feet.</p> <p>The reduction in the number of intakes is an obvious subterfuge intended to make the proposed project look smaller in response to federal agency concerns even though the ultimate 15,000 cfs carrying capacity of the tunnels is preserved. In fact, the two Tunnels have actually been increased in diameter from 33 feet to 40 feet. Consequently, the Delta Water Tunnels project has not been downsized at all. Instead, the Administrative Draft fails to provide the "accurate, stable, and finite project description" required by CEQA and the accurate project description required by NEPA and ESA. By this same subterfuge, the BDCP process unlawfully segments, piecemeals, and chops up the project into different phases by seeking approval now based on intake capacity when the intent is to actually operate in the future at the capacity of the tunnels. That also violates the ESA, NEPA, and CEQA. This violation is explained in more detail in our comment letter of August 13, 2013. (January 14, 2014 Friends of the River comment letter, Attachment 2).</p>	<p>Please see Master Response 8 describing how the project alternatives were analyzed.</p> <p>The diameter of the tunnels increased to allow for gravity flow from the north Delta intakes to the Clifton Court Forebay to reduce energy use and pumping costs.</p> <p>With regards to other comment letters submitted, please refer to the comment response index to locate the specific letter and corresponding comments.</p>
1611	86	<p>Violation of Section 7 of the Endangered Species Act:</p> <p>The Sacramento River creates habitat for dozens of endangered and threatened species. Five of these species include the Sacramento River Winter-Run Chinook Salmon, the Central Valley Spring-Run Chinook Salmon, the Central Valley Steelhead, the Southern Distinct Population Segment of the North American Green Sturgeon, and the Delta Smelt. 50 C.F.R. [Section] 17.11. Realizing the reliance these fish have on the Sacramento River, U.S. Fish and Wildlife Service and National Marine Fisheries Service, designated the Delta and the lower stretch of the Sacramento River as critical habitat for each species. [Footnote 7: 50 C.F.R. [Section] 226.204 (Sacramento River Winter-Run Chinook Salmon), 50 C.F.R. [Section] 226.211(k)(5)(i) (Central Valley Spring-Run Chinook Salmon), 50 C.F.R. [Section] 226.211(l)(5)</p>	<p>Reclamation has submitted a Biological Assessment to USFWS and NMFS for consideration during preparation of the Biological Opinions. Please see Master Response 29.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(Central Valley Steelhead), 50 C.F.R. [Section] 226.219(a)(3) (Southern DPS of NA Green Sturgeon), and 50 C.F.R. [Section] 17.95-e-Fishes-Part 2 (Delta Smelt).] USFWS and NMFS designate habitats as critical when they contain the primary constituent elements (PCEs) needed for a species to survive and recover. 50 C.F.R. [Section] 424.12(b). PCEs of the Delta and Sacramento River include "physical habitat, water, river flow, and salinity concentrations" (59 FR 65256) and "water quality and quantity" (70 FR 52488). River flow includes the magnitude, frequency, and duration of flow; water quality includes temperature and salinity. (74 FR 52300).</p> <p>The Endangered Species Act (ESA) commands federal agencies to "insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat ..." 16 U.S.C. [Section] 1536(a)(2). Because the BDCP will affect listed species and designated critical habitat, NMFS and USFWS must issue BiOps determining whether the BDCP will jeopardize a listed species or destroy or adversely modify designated critical habitat. 50 C.F.R. [Section] 402.14(a). To make these determinations, NMFS and USFWS must "evaluate the current status of the listed species or critical habitat," "the effects of the action," and "cumulative effects on the listed species or critical habitat." 50 C.F.R. [Section] 402.14(g)(2)-(3).</p>	
1611	87	<p>Although U.S. Fish and Wildlife Service and National Marine Fisheries Service designated the Delta and lower portions of the Sacramento River as critical habitat, dams and diversions have degraded many of the habitats' Primary Constituent Elements. As a result of these degradations, the five listed fish species struggle to survive in the critical habitat designated for their survival and recovery. The BDCP identifies degradations of the critical habitat which each species encounters in the Delta and Sacramento River. These modifications include physical habitat loss and increased water temperature, which continue to worsen as the climate changes.</p> <p>The Sacramento River was once rich with spawning, rearing, and staging habitat for Delta species. The unimpaired Sacramento River flow inundated key spawning habitat and floodplains, providing access to productive ecosystems of abundant food sources for growing fish. Today, levees and dams prevent flooding and restrict flows, resulting in lower water levels and significantly less inundated habitat. As reported by the BDCP, "[a]ccess to much of the historical upstream spawning habitat for winter-run Chinook salmon has been eliminated or degraded by artificial structures (e.g., dams and weirs) associated with water storage and conveyance, flood control, and diversions and exports ..." (Plan, 2A.3-9). These developments have had a disastrous effect on the Winter-Run Chinook Salmon. "... Shasta Dam reduced the winter-run Chinook salmon ESU from four independent populations to just one." (Plan, 2A.3-9). Habitat modification has had similar impacts on the other listed species. For example, "[m]ost historical adult staging/holding and spawning habitat for Central Valley steelhead is no longer accessible to upstream migrating steelhead." (Plan, 2A.6-9). The delta smelt's habitat may be reduced "because of land reclamation, channelization, and riprapping of historical intertidal and shallow subtidal wetlands," but "[t]he extent to which such habitat loss may be limiting the population is unknown." (Plan, 2A.1-11). Dams render 44.2% of Green Sturgeon spawning habitat inaccessible. (Plan, 2A.8-7).</p> <p>These five endangered and threatened species of fish rely heavily on the Sacramento River to provide irreplaceable habitat for spawning, rearing, and adult staging. Development and</p>	This comment is consistent with information in the Existing Conditions section of Chapter 11 of the EIR/EIS.

DEIRS Ltr#	Cmt#	Comment	Response
		diversions have caused sharp declines in populations, demonstrating that these fish adapt poorly, if at all, to interference with their habitat. The remaining habitat must be preserved and expanded in order to support Delta species' survival and recovery.	
1611	88	<p>Historically, the cool Sacramento River water provided the needed temperatures for coldwater fish species migrating from the Pacific Ocean. Cool precipitation and snowmelt maintained the river's lower temperatures despite warm ambient conditions. Today, Sacramento River temperatures rise above suitable levels. The Draft Recovery Plan for Central Valley Salmonids identifies elevated water temperatures as a cause of habitat decline. (Pg. 3). The BDCP admits that "[e]xposure to seasonally elevated water temperatures may occur as a result of reductions in flow, as a result of upstream reservoir operations ..." (Plan, 2A.3-17). Dams and reservoirs restrict the natural flow of the Sacramento River, resulting in weakened flows downstream of the dam. With less water flowing in the river, the ambient conditions have a larger impact on the lower volume of water, causing it to warm faster. In addition to reservoir operations, diversions also weaken river flow and contribute to warming the remaining river water.</p> <p>The increasing water temperatures have adversely impacted critical habitat in the Delta and the species that rely on it. "Spring-run and winter-run Chinook salmon are highly vulnerable to increased temperatures upstream of the Delta." Draft BDCP, (5.A.2.0-2). "Increasing temperatures will result in less spawning habitat for anadromous fish." (Plan, 5.A.2.0-2). "Higher water temperatures can lead to physiological stress, reduced growth rates, prespawning mortality, reduced spawning success, and increased mortality of salmon [and steelhead]." (Plan, 2A.3-17; 2A.6-13) (internal citations omitted). The Green Sturgeon also struggles with increasing temperature. "The Feather River is likely to have supported significant spawning habitat for the green sturgeon population in the Central Valley before dam construction." (Plan, 2A.8-6). Today:</p> <p>"[w]ater temperatures in the Feather River may be inadequate for spawning and egg incubation as the result of releases of warmed water from Thermalito Afterbay. Warmed water may be one reason why neither green nor white sturgeon are [sic] found in the river during low-flow years. It is not expected that water temperatures will become more favorable in the near future and this temperature problem will continue to be a factor affecting habitat value for green sturgeon ..."</p> <p>(Draft BDCP, (2A.8-9 - 8.10) (internal citations omitted))</p> <p>The delta smelt "are sensitive to exposure to elevated water temperatures, and high temperatures are known to reduce delta smelt survival and interfere with spawning." (Plan, 2A.1-12). The delta smelt is considered to be the most vulnerable of these species to increasing temperatures. (Plan, 5.A.2.0-2). Whereas the other four species will return to the cool waters of the Pacific Ocean, the delta smelt lives in the Delta exclusively and cannot escape its rising temperatures. Conditions in the Delta continue to decline for coldwater species. As temperatures rise, the suitability of the critical habitat plummets, threatening Delta species' survival and recovery.</p>	This comment is consistent with information in the Existing Conditions section of Chapter 11 of the EIR/EIS.
1611	89	Climate change will intensify deterioration of critical habitat and expose fish species to higher temperatures in the Delta. As stated in the BDCP, "[d]ue to climate change, some areas in northern California may experience more rainfall, but California generally will be 15 to 35% drier by 2100." (Plan, 2.C-7). "Simulated projections indicate decline in precipitation for the Sacramento region for the rest of the 21st Century, especially the latter half of the	<p>The portion of this comment related to existing conditions is consistent with information in the Existing Conditions section of Chapter 11 of the EIR/EIS.</p> <p>The portion of the comment that addresses actions designation of critical habitat and primary constituent elements by USFWS and NMFS are consistent with ESA.. Please see Master Response 4. The new proposed</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>century." (Plan, 2.C-7). Snowmelt is also a major source of water for the Sacramento River. Reduced snowmelt necessarily results in lower water levels and reduced flow in the Sacramento River. According to predictions in the BDCP, "[s]nowpack volumes are expected to decline 25% by 2050." (Plan, 2.C-10). The resulting lower flows in the Sacramento River will affect, not only the river itself, but also the Bay Delta which relies on Sacramento River flows. As sea level rises, water from the Pacific Ocean and San Francisco Bay will push further into the Delta, increasing salinity level and drastically impacting water quality.</p> <p>Maintaining healthy X2 [Footnote 8: "X2 is the distance, expressed in kilometers from the Golden Gate Bridge, at which channel-bottom water salinity (isohaline) is 2 ppt." (Plan, 5.A.2-91).] locations will require increasingly stronger Delta outflows. According to the BDCP:</p> <p>"[f]or the existing salinity conditions, the X2 will move downstream about 1 km for each 10% increase in Delta outflow. Therefore, to move the X2 positions downstream 2 km would likely require about 20% more outflow. For existing conditions, an outflow of about 7,100 cfs is required to maintain X2 at Collinsville (km 81); the required Delta outflow for the projected LLT [Late Long-Term] sea level rise of 45 cm likely would require about 8,520 cfs (1.2 x 7,100 cfs). An outflow of about 11,400 cfs is required to maintain X2 at Chipps Island (km 75); the required Delta outflow for the projected LLT sea level rise of 45 cm likely would require about 13,680 cfs (1.2 x 11,400 cfs)."</p> <p>(Plan, 5.A.2-91).</p> <p>The delta smelt relies almost exclusively on the inner Delta as its primary habitat. Encroaching seawater will impact the water quality of the Delta. It remains unclear whether the delta smelt could tolerate higher salinity levels in the Delta.</p> <p>Climate change will worsen habitat loss and already-increasing water temperatures. With less precipitation and snowmelt, water levels in the Sacramento River will continue to decline. As water levels decline, less habitat will remain inundated and accessible to fish. Also, the water temperatures will rise faster, especially with the warming ambient conditions. Without adequate preservation and restoration measures for Delta critical habitat, these fish face dim prospects for survival and recovery.</p> <p>"When considering the designation of critical habitat, [USFWS and NMFS] shall focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species." 50 C.F.R. [Section] 424.12(b) (italics added). USFWS and NMFS must determine and list the primary constituent elements with the critical habitat description. 50 C.F.R. [Section] 424.12(b). Primary Constituent Elements "are essential to the conservation of a given species and [] may require special management considerations or protection." 50 C.F.R. [Section] 424.12(b). Without these PCEs, there would be no reason to designate habitat as critical. Accordingly, when considering the effects of a proposed action on critical habitat, NMFS and USFWS must evaluate the proposed project's effects on critical habitat PCEs. Concerning the BDCP, NMFS and USFWS must evaluate the BDCP's potential impacts on PCEs in the Delta and Sacramento River: physical habitat, water temperature, river flow, and salinity.</p>	<p>project (California WaterFix/Alternative 4A) does not include large-scale habitat restoration and would not be implemented as an HCP under ESA Section 10. Instead, the proposed project will achieve incidental take authorization through the ESA Section 7 permitting process. Please see Chapter 3 in the EIR/EIS for more information.</p>
1611	90	<p>CM1 Effects on Physical Habitat and Water Temperature</p> <p>"The primary purpose of Conservation Measure 1 Water Facilities and Operation is to</p>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) has been identified as the Proposed Project. As shown in Appendix 5A,</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>construct and operate a facility that improves conditions for covered species and natural communities in the Delta while improving water supply." (Plan, 3.4-1). Great tension exists between these goals. The more water left in the river for fish necessarily means a lower diversion; conversely, a greater diversion will result in less water kept in the river for biological goals. The BDCP claims to attempt to balance these goals with decision trees, which establish minimum flow criteria for the Sacramento River. Under these criteria, BDCP claims the proposed north Delta intake facility will only be permitted to divert water when the Sacramento River flow exceeds 5,000-7,000 cfs (depending on the month). (Plan, 3.4-20).</p> <p>These minimum flow levels of 5,000 and 7,000 cfs are dangerously low. According to the United States Geological Survey, the average Sacramento River flow at Freeport, California in October is 12,200 cfs. [Footnote 9:  <a href="http://nwis.waterdata.usgs.gov/nwis/monthly/?referred_module=sw&amp;site_no=11447650&amp;por_11447650_2=2209860,00060,2,1948-10,2010-03&amp;format=html_table&amp;date_format=YYYY-MM-DD&amp;rdb_compression=file&amp;submitted_form=parameter_selection_list">http://nwis.waterdata.usgs.gov/nwis/monthly/?referred_module=sw&amp;site_no=11447650&amp;por_11447650_2=2209860,00060,2,1948-10,2010-03&amp;format=html_table&amp;date_format=YYYY-MM-DD&amp;rdb_compression=file&amp;submitted_form=parameter_selection_list</a>] This means that operating at the constant low level pumping during October, which has a minimum flow requirement of 7,000 cfs, will, on average, decrease the Sacramento River's flow by 4,200 cfs. This represents a flow reduction of 34%, which will necessarily result in lower water levels, further deteriorating the Primary Constituent Elements [PCEs] of physical habitat and water temperature. With lower water levels, the Sacramento River will inundate less land, denying listed species access to physical habitat. Moreover, the lower water levels will expose listed species to higher temperatures. CM1 operations will worsen declining PCEs in the Delta and Sacramento River.</p>	<p>Section C, of the EIR/EIS, the minimum flows in the Sacramento River downstream of the north Delta diversions would be 7,500 cfs or higher in the critical dry years in the driest months. During these low flow periods, low-level pumping would not occur, as described in Chapter 3 and Appendix 5A of the EIR/EIS.</p>
1611	91	<p>CM2 Effects on Physical Habitat and Water Temperature:</p> <p>CM2: Yolo Bypass Fisheries Enhancement Plan includes plans to restore and enhance the Yolo Bypass as habitat for covered species. The Yolo Bypass is a floodplain along the Sacramento River, west of the City of Sacramento. In the unusual circumstances when Sacramento River flows exceed 55,000 cfs [cubic feet per second], water spills over the Fremont Weir and into the Yolo Bypass before reaching and flooding the City of Sacramento. The goal of CM2 is restoration of high quality habitat for fish species struggling in the Sacramento River. (Plan, 3.4-41). When inundated, floodplains often demonstrate a significant increase in biomass. (Plan, 3.4-41). Increases in production of phytoplankton and dipteran larvae provide abundant food sources for juvenile fish. (Plan, 3.4-41). The Knaggs Ranch Experimental Agricultural Floodplain Pilot Study 2011-2012 Year One Overview reports "remarkable growth rates" for salmon reared in the Yolo Bypass. (Pg. 10).</p> <p>Yolo Bypass inundation results from significant flood events, not typical overtopping events at Fremont Weir. (Plan, 3.4-44). Conditional on these flood events, Yolo Bypass inundation is too infrequent to consistently support salmonid development. To take advantage of the productive floodplain habitat, CM2 includes plans to modify Fremont Weir to allow flooding at flows lower than 55,000 cfs, the current threshold for Yolo Bypass flooding. (Plan, 3.4-53). The modified weir would allow flows of 1,000 cfs to 6,000 cfs into the Yolo Bypass at a lower Sacramento River flow (25,000 cfs rather than 55,000 cfs under existing conditions). (Plan, 5C.A-72). The target diversion range for the Yolo Bypass is 3,000 to 6,000 cfs of Sacramento River water. (Plan, 5C.A-58).</p> <p>Even if the virtually always dry Yolo Bypass could serve as a fish habitat, the Sacramento River flow will rarely be high enough to inundate the Yolo Bypass while satisfying the</p>	<p>Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered.</p> <p>Also, it should be noted that increased frequency and extent of inundation in the Yolo Bypass is being analyzed in separate projects by Reclamation and DWR in accordance with the 2009 NFMS biological opinion and other habitat restoration and flood management programs. Because the habitat restoration is required by the NMFS biological opinion, and would occur with or without the Project, the habitat restoration is part of the No Action Alternative as well as Alternatives 2D, 4A (the revised Proposed Project), and 5A, as described in Chapter 3 of the EIR/EIS. Please see Master Response 4. Separate engineering and environmental documentation are being prepared by Reclamation and DWR to analyze alternatives for habitat restoration and use of operable gates for the Yolo Bypass.</p> <p>For more information on the development of restoration/improvements in the Yolo Bypass, please see the following website:  <a href="http://www.water.ca.gov/aes/yolo/">http://www.water.ca.gov/aes/yolo/</a></p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>biological needs and diversions of the Sacramento River. Diverting up to 6,000 cfs into the Yolo Bypass could result in as much as 3 feet of reduction in river stage in the Sacramento, although understanding of how notch flows would affect river stage is incomplete. (Plan, 5C.5.4-6). This would radically worsen the deterioration of physical habit and water temperature Primary Constituent Elements [(PCEs)]. The Sacramento River currently lacks adequate water levels needed to provide access to physical habitat and preserve cool river temperatures. A reduction of as much as three feet in river stage would provide less access to habitat and increase water temperatures, further diminishing the conservation value of the habitat.</p> <p>Additionally, the restored Yolo Bypass will serve as poor habitat for adult and juvenile fish. The Preliminary Report on the Experimental Agricultural Floodplain Habitat Investigation at Knaggs Ranch on Yolo Bypass states that when "flood waters leave main river channels to flow over adjacent floodplains, they slow, spread out, and warm ..." (Pg. 4). Warm water temperatures and low water levels are the same conditions deteriorating PCEs in the Sacramento River and Delta. Further, species which enter the Yolo Bypass would endure increased losses due to stranding. (Plan, 3-3, 3-6, 4-5). Instead of improving habitat conditions, CM2 will intensify the decline of physical habitat and water temperature conditions.</p>	
1611	92	<p>River Flow:</p> <p>The State Water and Central Valley Projects (SWP/CVP) divert so much water from the south Delta that they reverse Delta flows. Instead of flowing to the Bay, some Delta channels flow toward the Clifton Court Forebay. In addition to confusing migratory fish following attraction flows and olfactory cues (Plan, 5.5.3-2, 4-20, 3-32), these reverse flows capture fish, especially juveniles and smaller species, and entrain them in the SWP/CVP intake facilities. According to the Draft BDCP, north Delta intake facilities are expected to result in "substantial reductions in entrainment and associated adverse effects associated with operation of the south Delta intakes." (Plan, 3.4-7).</p> <p>However, implementation of U.S. Fish and Wildlife Service and National Marine Fisheries Service BiOps has already mitigated SWP/CVP entrainment. According to the BDCP, "[i]mplementation of south Delta export pumping restrictions under the USFWS (2008a) BiOp has considerably limited the entrainment loss of adult delta smelt." (Plan, 5.5.1-27) (internal citations omitted). Entrainment poses an even lower threat to the anadromous species. The BDCP cites entrainment losses of the Sacramento River Winter-Run Chinook Salmon population at .1% in 2007 and 5% in 2001. (Plan, 5.5.3-15). Similarly, "entrainment is not thought to be a major stressor" to Green Sturgeon. (Plan, 5.5.8-14). Entrainment is not as problematic as it was prior to 2008. The 2008 USFWS BiOp and 2009 NMFS BiOp limit pumping in the south Delta, minimizing entrainment and associated impacts on listed species. (EIR/EIS, 11-162-63).</p> <p>These facts undermine the proposed benefit of reducing entrainment. As admitted in the Draft BDCP, entrainment is no longer a serious threat to listed species due to USFWS and NMFS BiOps. Thus, the room for improvement with dual conveyance operation appears minimal at best. In fact, constructing and operating north Delta intake facilities may expose listed species to increased entrainment risks in the Sacramento River. According to the Delta Science Independent Review Panel, "the validity of the primary assumption that there will be no entrainment of fish at the north Delta diversion (NDD) should be evaluated. In reality, there will be some fish lost at the transfer point ..." (BDCP Effects Analysis Review, Phase 3,</p>	<p>Fish and aquatic resources are described in Chapter 11 and its appendices. Also, it should be noted that increased frequency and extent of inundation in the Yolo Bypass is being analyzed in separate projects by Reclamation and DWR in accordance with the 2009 NFMS biological opinion and other habitat restoration and flood management programs. Because the habitat restoration is required by the NMFS biological opinion, and would occur with or without the Project, the habitat restoration is part of the No Action Alternative as well as Alternatives 2D, 4A (the revised Proposed Project), and 5A, as described in Chapter 3 of the EIR/EIS. Please see Master Response 4.</p> <p>Separate engineering and environmental documentation are being prepared by Reclamation and DWR to analyze alternatives for habitat restoration and use of operable gates for the Yolo Bypass. See previous response.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Pg. 37-38). Nonetheless, the Draft BDCP fails to assess the likely entrainment and impingement impacts caused by North Delta diversions.</p> <p>CM2 is meant to mitigate of impacts caused by CM1 by providing an alternative migration route in the Yolo Bypass, allowing smolt to avoid entrainment or impingement associated with the north Delta intake pumps. (Plan, 5.F-16). According to the BDCP, few juvenile fish would migrate through the Yolo Bypass to the Delta. "Of the Sacramento Basin population of Chinook salmon smolts that reach the Delta, an estimated 3 to 10% (depending on the run) would migrate via the Yolo Bypass ..." (Plan, 5.F-iii). This demonstrates that very few fish would reap the benefits of having access to the Yolo Bypass. Instead, most of the fish, adult or juvenile, would have to migrate through the Sacramento River and survive radically worsened conditions for the benefit of a small population of juveniles.</p>	
1611	93	<p>Salinity:</p> <p>The Sacramento River minimum flow requirements under CM1 will interfere with Delta outflow requirements. Under State Water Resources Control Board Decision 1641 (D-1641), diversions may not shift X2 "east of Chipps Island (75 river kilometers upstream of the Golden Gate Bridge) during the months of February through May" or "east of Collinsville (81 kilometers upstream of the Golden Gate Bridge) during the months of January, June, July, and August." (D-1641, Pg. 150). As cited above, a Delta outflow of 11,400 cfs is required to maintain X2 at km 75 under current conditions. Once sea level rises by the predicted 45 cm, maintaining X2 at km 75 will require a Delta outflow of 13,680 cfs.</p> <p>For April, the BDCP minimum flow bypass is 5,000 cfs. The San Joaquin River outflow into the Delta is, on average, 7,100 cfs during April. [Footnote 10: <a href="http://wdr.water.usgs.gov/wy2011/pdfs/11303500.2011.pdf">http://wdr.water.usgs.gov/wy2011/pdfs/11303500.2011.pdf</a>] This means that the combined flow of the Sacramento and San Joaquin Rivers, ignoring evaporation and seepage, will be, on average, 12,100 cfs. By the Late Long-Term (LLT) of the project, this Delta outflow of 12,100 cfs would fail to reach the necessary 13,680 cfs required to maintain X2 at km 75 by 1,580 cfs. To make matters worse, by the LLT of the project, precipitation and river flows will be drastically lower, and the Delta outflow would probably face a deficit much higher than 1,580 cfs.</p> <p>Consequently, the increased diversions and inadequate bypass flow requirements will ensure that there is insufficient Delta outflow to preserve water quality in the Delta. Without sufficient Delta outflow, saltwater will intrude and increase salinity levels in the bays and Delta. The increased salinity will impair the water quality Primary Constituent Element. The delta smelt has adapted to a range of salinity which reflects seasonal change. (59 FR 65256). Salmonids rely on specific salinity levels to transition between freshwater and saltwater environments. (70 FR 52488). The proposed BDCP operations threaten the sensitive ecological balance in the Delta and bays, relied on by listed species. It remains unclear whether Delta species could adapt to disturbed salinity levels in the Bay Delta.</p>	<p>For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. It also should be noted that the study period for the Proposed Project and the subsequent biological opinions issued by USFWS and NMFS has been modified to 2025/2030 time frame due to uncertainties in future climate change conditions.</p> <p>As shown in Appendix 5A, Section C, Delta outflow would be similar under the proposed project as compared to the No Action Alternative. The effects of Delta outflow conditions on water quality and fisheries under all action alternatives as compared to the Existing Conditions and No Action Alternative are analyzed in Chapters 8 and 11 of the EIR/EIS.</p>
1611	94	<p>ESA regulations direct the consulting fish and wildlife agency to "[f]ormulate its Biological Opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." 50 C.F.R. [Section] 402.14(g)(4). Joint National Marine Fisheries Service and U.S. Fish and Wildlife Service regulations define destruction or adverse</p>	<p>The increased frequency and extent of inundation in the Yolo Bypass is being analyzed in separate projects by Reclamation and DWR in accordance with the 2009 NFMS biological opinion and other habitat restoration and flood management programs. Because the habitat restoration is required by the NMFS biological opinion, and would occur with or without the Project, the habitat restoration is part of the No Action Alternative as well as Alternatives 2D, 4A (the revised Proposed Project), and 5A, as described in Chapter 3</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>modification to mean "a direct or indirect alteration ... adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." 50 C.F.R. [Section] 402.02. [Footnote 11: The Ninth Circuit invalidated part of the agencies' definition of "destruction or adverse modification". Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service, 378 F.3d 1059, 1070-71 (9th Cir. 2004). However, the court did not review or invalidate the definition cited above.] [Footnote 12: NMFS and USFWS have proposed joint regulations re-defining "destruction or adverse modification" which retain focus on "physical and biological features". See 70 FR 27060.] Accordingly, NMFS and USFWS BiOps must determine whether the BDCP will cumulatively, adversely modify the physical or biological features, or Primary Constituent Elements, of the Sacramento River and Delta.</p> <p>Consider the implementation of CMs 1 and 2. If the government implements CM1 at capacity diverting 6,000-15,000 cfs from the Sacramento River while implementing CM2 at capacity, diverting 6,000 cfs from the Sacramento River, a range of 12,000 to 21,000 cfs will be diverted from the Sacramento. Such a massive diversion would drastically worsen declining Perchloroethylene values in the river. Water levels would plummet, inundating less land, increasing water temperatures, and allowing saltwater intrusion. As discussed above, the restored Yolo Bypass under CM2 would include the same inadequate conditions causing species to decline in the Sacramento River. Although CM2 is meant to mitigate the effects of CM1, CM2 would intensify the adverse effects of CM1. Attempts to restore habitat with insufficient water quantity will spread thin an already-limited resource, leaving these listed species with inadequate habitat. Diverting up to 6,000 cfs from the Sacramento while operating the proposed intake facility will ensure that neither the Sacramento nor the Yolo Bypass maintains the PCEs needed to support the survival and recovery of listed species.</p> <p>Reduced pumping in the south Delta could decrease entrainment and associated effects of pumping, but the NMFS and USFWS BiOps have already minimized entrainment and associated effects. Moreover, maintaining natural flows in the south Delta does nothing to improve conditions in the Sacramento River, which will sustain the largest impacts of the project. Instead, the dual conveyance system will interfere with Sacramento River flow, creating more entrainment and impingement impacts in the Sacramento.</p> <p>These BDCP operations will invariably result in the adverse modification of Delta and Sacramento River PCEs. Physical habitat will be lost due to diversions causing lower water levels; water temperature will increase, creating harsher conditions for struggling species; and salinity levels in the Delta will rise as Delta outflow decreases. The loss of these PCEs would drastically diminish the conservation value of the Sacramento River and Delta. The Sacramento River and Delta would cease to provide the irreplaceable habitat that NMFS and USFWS sought to protect. Accordingly, implementation of the BDCP would adversely modify designated critical habitat, in violation of Section 7 of the Endangered Species Act.</p>	<p>of the EIR/EIS. Please see Master Response 4. Separate engineering and environmental documentation are being prepared by Reclamation and DWR to analyze alternatives for habitat restoration and use of operable gates for the Yolo Bypass.</p> <p>It should be noted that diversion of water at the north Delta diversions would be limited by the north Delta bypass flows, and that the full 9,000 cfs capacity of the Proposed Project at north Delta intakes would not be fully utilized except for a few months in extremely wet years, as shown in Appendix 5A, Section C.</p> <p>The Proposed Project has been developed with the goals of minimizing and avoiding incidental take of listed species to the maximum extent practicable. Chapter 11, Fish and Aquatic Resources, and Chapter 12, Terrestrial Biological Resources, EIR/EIS, describe effects of the proposed project and several alternatives on fish and wildlife species in the Plan Area. The Proposed Project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p> <p>Section 7 requires that federal agencies, in consultation with the federal fish and wildlife agencies, ensure that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat. Where the alternative does not include preparation of an HCP, ESA compliance for construction and operation of water intakes in the north Delta and associated conveyance facilities would be achieved solely through Section 7. For these alternatives, USFWS and NMFS would not issue a permit and would not act as a lead agency for NEPA compliance. Where Section 7 is the ESA compliance strategy, USFWS and NMFS will assume roles as cooperating agencies for purposes of the NEPA review.</p> <p>Please see Master Response 28 for more information regarding operational scenarios.</p>
1611	95	<p>Under the Administrative Procedure Act, courts reviewing agency decisions shall "hold unlawful and set aside agency actions, findings, and conclusions found to be ... arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law ..." 5 U.S.C. [Section] 706 (emphasis added). "A Biological Opinion is arbitrary and capricious if it fails to consider the relevant factors and articulate a rational connection between the facts found and the choice made." Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1121 (9th Cir. 2012) (internal quotations omitted). In this case, the BDCP BiOps must</p>	<p>The Recirculated Draft EIR/Supplemental Draft EIS released in 2015 introduced a new Proposed Project, 4A, which does not include a HCP or conservation measures. The alternative implementation strategy allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the proposed project. Alternative 4A would implement substantially less habitat restoration than the BDCP. Instead, Alternative 4A only includes habitat restoration necessary to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b). Please refer to Chapter 3, Description of</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>articulate a rational connection between the project's cumulative impacts and the decision of whether the BDCP will adversely modify critical habitat. However, due to the pervasive uncertainty in the Draft BDCP CMs, there is insufficient science to support the conclusion that the BDCP would not adversely modify critical habitat. Concluding that there would be no adverse modification of critical habitat based on the Draft BDCP and EIR/EIS would be arbitrary and capricious.</p> <p>The Delta Science Program Independent Review Panel (DSPIRP) and the Delta Independent Science Board (DISB) Draft BDCP and EIR/EIS reviews highlight the unsupported conclusion that the CMs will benefit covered species. According to the DSPIRP, "many of the critical justifications behind the supposed benefits of the conservation measures are highly uncertain." (BDCP Effects Analysis Review, Phase 3, Pg. 17). "Approximately 72% of the objectives for covered fish could not be fully evaluated at this time due to insufficient information." (BDCP Effects Analysis Review, Phase 3, Pg. 21). According to the DISB:</p> <p>"The analysis regarding habitat restoration assumes there will be increases in phytoplankton production and that these increases will be transferred up the food web to covered species. This largely ignores an equally likely result that the added biomass of phytoplankton will be consumed by [invasive] clams, which have had substantial effects on phytoplankton abundance and species composition throughout the Delta."</p> <p>(Review of the Draft BDCP EIR/EIS and Draft BDCP, Pg. B-39).</p> <p>The BDCP assumes that restored habitat will benefit covered species, not invasive species which threaten covered species. "Some of these other species, such as nonnative predators and invasive clams, may also benefit from these expanded habitats. Benefits for the other species may dampen any benefits of the habitat restoration for covered species." (Review of the Draft BDCP EIR/EIS and Draft BDCP, Pg. B-41).</p> <p>Further, it is unclear which habitats the BDCP would restore. As stated by the DISB, the "priority of habitats to be restored is not indicated, so it is not clear if the most critical habitats will be first on the list." (Review of the Draft BDCP EIR/EIS and Draft BDCP, Pg. B-39). In <i>Gifford Pinchot, the Ninth Circuit held that mitigation efforts outside critical habitat cannot offset adverse effects to designated critical habitat. 378 F.3d at 1076 (9th Cir. 2004).</i> Without detailed descriptions of the proposed restoration measures, it is impossible to ensure that the BDCP would restore critical habitat instead of habitats with low conservation values.</p> <p>As a result of this pervasive uncertainty, there is insufficient evidence to support a conclusion that the cumulative BDCP effects will not adversely modify critical habitat. Accordingly, any finding that the BDCP would not adversely modify critical habitat will be arbitrary and capricious. The ESA commands National Marine Fisheries Service and U.S. Fish and Wildlife Service to "insure that any action ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat ..." 16 U.S.C. [Section] 1536(a)(2) (emphasis added). An arbitrary and capricious finding that the BDCP would not adversely modify critical habitat will fail to insure the protection of critical habitat, violating the commands of the ESA.</p>	<p>Alternatives for more detail. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>
1611	96	<p>The Sacramento River Winter-Run Chinook Salmon, the Central Valley Spring-Run Chinook Salmon, the Central Valley Steelhead, the Southern Distinct Population Segment of the North American Green Sturgeon, and the delta smelt face declining conditions throughout</p>	<p>For additional detail on the primary issues being raised with regard to the BDCP, please see Master Response 5. The results of the impact analysis related to aquatic resources under the current Proposed</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the Sacramento River and Delta. Dams and diversions have caused low flows, warming temperatures, increases in salinity, and reversed river flows, devastating the health of the Delta ecosystem. Nevertheless, the Draft BDCP includes measures to increase Sacramento River diversions, which will worsen these conditions and adversely modify the critical habitat that endangered and threatened Delta species rely on for survival and recovery. To comply with the commands of the ESA, National Marine Fisheries Service and U.S. Fish and Wildlife Service must reject the requests for authorized incidental take of listed species under the BDCP.</p>	<p>Project (Alternative 4A) are presented in Chapter 11 of the EIR/EIS.</p>
1611	97	<p>The BDCP does not meet the requirements for an Incidental Take Permit under ESA Section 10.</p> <p>The Endangered Species Act prohibits the taking of any federally designated endangered species. 16 U.S.C. [Section] 1538 (West 2014). A take is defined as to "harass, harm, pursue, hunt, wound, kill, trap, capture, or collect." 16 U.S.C. [Section] 1538(a)(1) (West 2014). Any significant habitat modification or degradation that impairs breeding, feeding, or sheltering is also considered harm in terms of ESA. 50 C.F.R. [Section] 17.3 (West 2014).</p> <p>ESA Section 10 allows exceptions to the prohibition on takings through acquiring an Incidental Take Permit. 16 U.S.C.A. [Section] 1539 (West 2014). In applying for a take permit, the applicant must develop a Habitat Conservation Plan that specifies "what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized." 16 U.S.C.A. [Section] 1539(2)(A)(iii) (West 2014).</p> <p>If the Habitat Conservation Plan meets the ESA Section 10 requirements, then the Secretary must then assess the permit application to determine with an Incidental Take Permit is appropriate. See 16 U.S.C.A. [Section] 1539(a)(2)(B). The Secretary may issue a permit only if they determine that:</p> <p>(ii) "the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking";</p> <p>(iii) "the applicant will ensure that adequate funding for the plan will be provided";</p> <p>(iv) "the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild"; and</p> <p>(v) the other measures required under subparagraph (A)(iv) will be met.</p> <p>(16 U.S.C.A. [Section] 1539(2)(B)(i-v) (West 2014).)</p> <p>The permit must "contain such terms and conditions as the secretary deems necessary or appropriate to carry out the purposes of this paragraph, including... such reporting requirements as the Secretary deems necessary for determining whether such terms and conditions are being complied with." Id. If a permittee is not complying with the terms and conditions of the permit, the Secretary will revoke the permit. 16 U.S.C. [Section] 1539(a)(2)(C).</p> <p>In addition to the permitting laws under ESA, National Marine Fisheries Service and U.S. Fish and Wildlife Service regulate Incidental Take Permits through regulations. Under National Marine Fisheries Service regulations, the Secretary must also consider:</p>	<p>For detailed responses on the primary issues being raised with regard to the BDCP, please see Master Response 5.</p> <p>Alternative 4A would not serve as habitat conservation plans/natural community conservation plans (HCPs/NCCPs) under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization under ESA Section 7 and CESA Section 2081(b). As a result, the Alternatives to Take analysis presented in the draft BDCP and required by Section 10 of the ESA is not applicable to the new Proposed Project, Alternative 4A.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(i) "the status of the affected species or stocks";</p> <p>(ii) "the potential severity of direct, indirect, and cumulative impacts on the species or stocks and habitat as a result the proposed activity"; and</p> <p>(iv) "the use of the best available technology for minimizing or mitigating impacts".</p> <p>50 C.F.R. [Section] 222.307 ©(1)(i-v) (West 2014).</p> <p>The Secretary must also ensure that the permit is consistent with ESA Section 7. See 16 U.S.C.A. [Section] 1536(a)(2) (West 2014).</p>	
1611	98	<p>The BDCP's Incidental Take Permit would be issued arbitrarily and capriciously if granted.</p> <p>If either U.S. Fish and Wildlife Service or National Marine Fisheries Service issued an ITP, the permit would be issued arbitrarily and capriciously. Administrative agencies must consider the relevant factors and articulate a rational connection between the facts found and the choices made. <i>Nw. Ecosystem Alliance v. U.S. Fish &amp; Wildlife Serv.</i>, 475 F.3d 1136, 1140 (9th Cir. 2007). The Administrative Procedure Act (APA) makes unlawful any agency action found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law." 5 U.S.C.A. [Section] 706(2)(A) (West 2014). A decision is arbitrary and capricious if the agency relied on factors Congress did not intend it to consider, filed to consider an important aspect of the problem, offered an explanation that runs counter to the evidence, or is so implausible that it cannot be ascribed to a difference in view or the product of agency expertise. <i>Motor Vehicle Mfrs. Ass'n of U.S., Inc., v. State Farm Mut. Auto., Ins. Co.</i>, 463 U.S. 29, 43 (1989).</p> <p>Here, the agencies would issue permits arbitrarily and capriciously if they issued permits pursuant to the plans outlined in the BDCP. To issue permits under joint regulations the agencies would have to ignore that the BDCP: (1) has not adequately addressed alternatives, (2) has not reduced by the maximum extent practicable; (3) has not provided adequate funding; and (4) has appreciably reduced the likelihood of the species' survival in the wild. 16 U.S.C.A. [Section] 1539(2)(A-B) (West 2014). To issue a permit under NMFS regulations, the agency would have to ignore that the BDCP: (1) threatens direct, indirect, and cumulative impacts on the species or stocks and habitat; and (2) does not use the best available technology for minimizing and mitigating impacts. 50 C.F.R. [Section] 222.307 (c)(1)(i-v) (West 2014).</p>	<p>Compliance with the ESA is detailed throughout the EIR/EIS analysis and additional information can be reviewed in the Biological Assessment.</p> <p>Also see Master Responses 29 and 45.</p>
1611	99	<p>The BDCP has not adequately assessed alternatives to take to warrant an Incidental Take Permit.</p> <p>Take alternatives are required by ESA when applying for an Incidental Take Permit. 16 U.S.C.A. [Section] 1539(2)(A) (West 2014). The take alternatives are designed to provide different levels of incidental take from the original plan. See Draft BDCP, 9-1. They "differ primarily in the location and scale of water conveyance facilities and operations." Draft BDCP, 9-13. Nonetheless, the take alternatives are almost entirely the same project.</p> <p>The Draft BDCP offers nine take alternatives lettered A through I. The take alternatives vary in their method of conveyance, operational criteria, average annual water deliveries, and conservation components. Draft BDCP, 9-14 -- 9-16. Development of alternatives "focused on the identification of alternatives that reduced the scope and intensity of potential</p>	<p>Please see Master Response 5 for an explanation of the adequacy of the take alternatives in Chapter 9 of the 2013 Draft BDCP. Please see also Master Response 4 for a discussion of the adequacy of alternatives in the EIR/EIS. The commenter's citation of a Conceptual Engineering Report (CER) that proposes a fish screen facility at Victoria Canal and Clifton Court Forebay is noted. While these new structure might reduce take of several of the covered species, they do not meet the project's purpose and need to increase water supply reliability in California and are therefore not included in the take alternatives evaluated in Chapter 9 of the 2013 Draft BDCP. The selection of the locations and types of fish screens are described in Appendix 3F of the EIR/EIS.</p> <p>The Alternatives to Take analysis presented in the 2013 Draft BDCP and required by Section 10 of the ESA is not applicable to the new Proposed Project, Alternative 4A.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>environmental effects, including adverse effects on covered fish and wildlife specie." Draft BDCP, 9-8. But, the BDCP concedes that "each take alternative would involve the construction of new conveyance facilities," while some of the take alternatives would only change a single conservation measure. Draft BDCP, 9-13. Furthermore, every single proposed take alternative, except one, would result in a range of 4.17-5.59 million acre-feet in water deliveries a year. The only alternative that provides a lesser amount is take alternative E, which offers a 3.4 MAF in deliveries. The BDCP itself estimates 4.71-5.59 MAF in annual deliveries. Alternative E is the only take alternative that makes a real attempt at reducing the annual deliveries of the project. Draft BDCP 9 – 14-16.</p> <p>The BDCP lists differences between the take alternatives such as: location and type of primary conveyance facilities; number of pumping plants; water facility components; number of forebays; and more. Draft BDCP 9-14. These differences, however, are focused on water conveyance methods, not methods to avoid the taking of species.</p> <p>Almost ironically, the Conceptual Engineering Report (CER) did propose changes that would affect the amount of incidental take by the project, but these changes were not implemented in any of the BDCP take alternatives. The CER suggests "constructing a new fish screening facility on [a] realigned section of Victoria Canal, and closing the existing inlet gate structure to CCF [Clifton Court Forebay] at the southwest corner to prevent fish from entering the forebay" because over "80% of juvenile salmonids and juvenile/adult smelt entering CCF do not survive." BDCP CER 20-1. There is a clear problem here since the mortality rate in forebays is so high, and the BDCP's own CER suggested an alternative that would result in reduced take, yet the BDCP failed to consider anything like this in the final take alternatives.</p> <p>The CER also suggests closing the existing inlet structure located at the southeast corner of CCF. BDCP CER 20-2. The existing inlet would be close to allowing only a single inlet through the Victoria Canal. Id. The CER states that this would prevent any new fish from entering CCF following this improvement, but again, the BDCP take alternatives fail to consider anything close to this idea that would significantly reduce take. Draft BDCP Chapter 9.</p> <p>The CER enters into a length discussion of twelve different kinds of intakes, yet the BDCP take alternatives make no mention of different kinds of intake, they only vary in their location and number. BDCP CER B 2-1-19; Draft BDCP 9-14-16. The BDCP assumes that only its selected intakes are worth consideration as alternatives, even though the CER concedes that other possibilities do exist.</p> <p>The BDCP implicitly concedes that the take alternatives are incomplete by proposing more effective alternatives to take in the CER. There are many other approached the BDCP could have taken in proposing alternatives, but includes projects that were essentially identical to the original plan.</p>	
1611	100	<p>The BDCP has not minimized and mitigated the damages to the maximum extent practicable, and provides too narrow a range of alternatives to adequately mitigate damages.</p> <p>ESA requires the secretaries to consider whether the take has been reduced by the maximum extend practicable. 16 U.S.C. [Section] 1539(2)(A) (West 2014). The BDCP fails to do so for two reasons. First, the Conceptual Engineering Report had already suggested practicable methods that would have significantly reduced take, which the BDCP outright</p>	<p>The EIR/EIS evaluates 18 action alternatives, soundly fulfilling the requirement to evaluate a reasonable range of alternatives. Appendix 3A of the EIR/EIS provides a description of the alternatives development process. For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>Please note that the BDCP is no longer the preferred alternative. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A.</p> <p>Alternative 4A would not serve as habitat conservation plans/natural community conservation plans</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>ignores in the take alternatives discussion. Secondly, the BDCP's rejection of its narrowly selected alternatives take the decision making process away from the secretary and places it in the hands of the BDCP.</p> <p>In <i>Gerber v. Norton</i>, the Fish and Wildlife service, the court held that the government did not minimize the impacts of the taking "to the maximum extent possible," pursuant to 16 U.S.C. [Section] 1539(a)(2)(B). 294 F.3d 173, 184 (D.C. Cir. 2002).</p> <p>When an agency is required to make a finding as a prerequisite to an action, it must do so. <i>Sugar Cane Growers Coop.</i>, 289 F.3d at 97. Furthermore, an agency may not delegate the responsibility to the regulated party. <i>Gerber</i>, 294 F.3d at 184.</p> <p>Here, the BDCP has not minimized or mitigated damages to the maximum extent practicable, as discussed in the above section. The BDCP's lack of adequate alternatives shows that the BDCP has failed to meet the minimum criteria necessary for the alternatives to count.</p> <p>Furthermore, it is the Secretary's decision, and not the applicant's, to determine whether the applicant has satisfied the issuance criterion. <i>Gerber</i>, 294 F.3d at 185. Therefore, before issuing a permit, the Secretary must independently find that there are no viable alternatives to the development plan. <i>Id.</i>, at 185. If the agency suggests a modification of the existing plan or proposes a modification to the existing plan, the result is an implicit rejection of the proposal. (<i>See Id.</i>)</p>	<p>(HCPs/NCCPs) under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization under ESA Section 7 and CESA Section 2081(b). As a result, the Alternatives to Take analysis presented in the 2013 Draft BDCP and required by Section 10 of the ESA is not applicable to the new Proposed Project, Alternative 4A.</p> <p>This EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This Final EIR/EIS is intended to provide sufficient CEQA and NEPA documentation and disclosures for the agencies to select and approve the proposed project or any of the action alternatives for either compliance strategy included in the EIR/EIS. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions. These other public agencies are referred to as responsible agencies and 20 trustee agencies under CEQA (State CEQA Guidelines Sections 15381 and 15386) and cooperating agencies under NEPA (e.g., USACE and EPA). 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.</p>
1611	101	<p>The BDCP outlines five questions that were asked regarding the take alternatives in determining whether they were chosen or not:</p> <ol style="list-style-type: none"> <li>1. "Does the take alternative reduce take of covered species?"</li> <li>2. "Does the take alternative increase conservation benefit to covered species?"</li> <li>3. "Is the take alternative consistent with the BDCP overall goal to provide "a comprehensive conservation strategy for the Sacramento-San Joaquin River Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework?"</li> <li>4. "Is the take alternative practicable in terms of costs, logistics, and technical feasibility?"</li> <li>5. "Are there additional significant unavoidable adverse effects to other resources?"</li> </ol> <p>(Draft BDCP 9-35.)</p> <p>These questions leave the Secretary to think that there are no viable alternatives outside of those suggested by the BDCP. But, these questions are insufficient by themselves to determine whether the alternatives are adequate. One fundamental question that the BDCP does not ask in its assessment of is: Are there any plans we did not consider? Or, are these alternatives too similar? The answer to both is, yes. The Conceptual Engineering Report presented multiple options that would have been much more effective in reducing the amount of take over the primary plan. The CER proposes: constructing a new fish screening facility on a realigned section of Victoria Canal, and closing the existing inlet gate structure to Clifton Court Forebay at the southwest corner to prevent fish from entering the forebay; and suggests closing the existing inlet structure located at the southeast corner of CCF.</p>	<p>Please see Master Response 5 for an explanation of the adequacy of the take alternatives in Chapter 9. Please see also Master Response 4 for a discussion of the adequacy of the range of alternatives in the EIR/EIS. The commenter's citation of a Conceptual Engineering Report (CER) that proposes a fish screen facility at Victoria Canal and Clifton Court Forebay is noted. While these new structure might reduce take of several of the covered species, they do not meet the project's purpose and need to increase water supply reliability in California and are therefore not included in the take alternatives evaluated in Chapter 9 of the 2013 Draft BDCP. The selection of the locations and types of fish screens are described in Appendix 3F of the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>BDCP CER 20-1. The BDCP take alternatives also fail to consider using any different intakes, or low flow fish screen as methods of reducing take. BDCP CER 2--1-19.</p> <p>The proposed alternatives are alternatives methods of conveyance. Their purpose is not to reduce the amount of species taken, but the method through which water is delivered. The amount of take associated with these alternatives is just coincidental, and the marginal differences between the projects shows this.</p>	
1611	102	<p>The BDCP has not ensured adequate funding as required by ESA Section 10.</p> <p>ESA states that there must be adequate funding prior to issuance of an Incidental Take Permit. However, the BDCP does not have adequate funding to meet this requirement. The BDCP refers to the implementation agreement for assurances of adequate funding, but the implementation agreement clearly falls short of the mark for adequate funding as discussed in "Funding Assurances," page 117 of this document.</p>	Please see Master Response 5 regarding funding.
1611	103	<p>Illegal award of Incidental Take Permits and no surprises protection:</p> <p>When state or private parties seek the authorized take of listed species, they must receive incidental take permits from National Marine Fisheries Service or U.S. Fish and Wildlife Service. Section 7. However, federal agencies seeking the authorized take of listed species must obtain an incidental take statement, not permit, from NMFS or USFWS. Section 7. A critical distinction between the two types of authorizations is the "No Surprises" rule. Under the No Surprises rule, once an incidental take permit has been issued and its terms and conditions are being implemented, the federal Fish and Wildlife Agencies will not require additional measures for changed circumstances not provided for in the plan or for unforeseen circumstances. 50 C.F.R. [Section] 222.307(g). Federal agencies, who may receive incidental take statements, not permits, are ineligible for assurances under the No Surprises rule. Id.</p> <p>The U.S. Bureau of Reclamation (Reclamation), which operates the CVP, is seeking incidental take statements for the BDCP from NMFS and USFWS. Reclamation is therefore ineligible for No Surprises rule assurances. CVP water contractors who have entered water contracts with Reclamation seek incidental take permits along with No Surprises rule assurances. (IA, 3). These CVP contractors are parties to the BDCP because they will assist Reclamation in making changes to CVP operations through implementation of the BDCP. Because the CVP contractors are parties to the BDCP by extension of Reclamation, the CVP contractors are ineligible for any rights or assurances unavailable to Reclamation. In other words, because Reclamation is ineligible for No Surprises rule assurances, their contractors are also ineligible since Reclamation cannot contract for rights and assurances that it does not have. Instead, Reclamation's CVP operations will be limited to the terms and conditions of the BDCP incidental take statement, and the CVP water contracts will be subject to the same limitations. Accordingly, granting No Surprises rule assurances to the CVP contractors would violate the ESA.</p>	For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.
1611	104	<p>Unlawful failure to release Biological Assessment and Biological Opinion:</p> <p>The failure to prepare the ESA and National Environmental Policy Act (NEPA) required Biological Assessments and Opinions analyzing the threatened adverse modification of critical habitats renders the draft EIR/EIS essentially worthless as an environmental disclosure and informational document under NEPA. The draft EIR/EIS is also premature and</p>	An RDEIR/SDEIS was developed and circulated in 2015, which included 3 additional Alternatives including the new Proposed Project, Alternative, 4A. The evaluation of the effects of Alternative 4A are included in the RDEIR/SDEIS and in this Final EIR/EIS. Alternative 4A would not serve as a habitat conservation plan/natural community conservation plan (HCP/NCCP) under ESA Section 10 and the NCCPA. Instead, Alternative 4A, as the California WaterFix Proposed Project, will be subject to incidental take authorization under ESA Section 7

DEIRS Ltr#	Cmt#	Comment	Response
		<p>unlawful under the ESA.</p> <p>The ESA Regulations (50 C.F.R. [Section] 402.14(a)) require that "Each Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If such a determination is made, formal consultation is required ..." Karuk Tribe of Cal. v. U.S. Forest Serv., 681 F.3d 1006, 1020 (9th Cir. 2012) (en banc)(emphasis added), cert. denied, 133 S.Ct. 1579 (2013). The Biological Assessments and Biological Opinions are the written documents that federal agencies must prepare during the ESA consultation process. The NEPA Regulations require that "To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the ... Endangered Species Act ..." 40 C.F.R. [Section] 1502.25(a). "ESA compliance is not optional," and "an agency may not take actions that will tip a species from a state of precarious survival into a state of likely extinction." Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 929-30 (9th Cir. 2008).</p> <p>The Biological Opinion is to determine "whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." 50 C.F.R [Section] 402.14(g)(4).</p> <p>Consequently, against this threat of extinction, conducting the draft EIR/EIS public review and comment stage without Biological Opinions or even Biological Assessments and draft Biological Opinions, leaves the public in the dark and violates both the ESA and NEPA. Conducting the NEPA environmental draft process prior to and in a vacuum from the ESA consultation process violates the ESA command to carry out the ESA process "at the earliest possible time" and violates the NEPA command to conduct the NEPA and ESA processes "concurrently" and in an "integrated" manner.</p> <p>The public and the decision-makers now have what they do not need: 40,000 pages of advocacy from the consultants including self-serving speculation that the adverse effects of reducing flows in the Sacramento River, sloughs, and Delta will be offset. The public and the decision-makers do not have what they do need and are entitled to by law: the federal agency Biological Assessments and Biological Opinions required by the ESA and NEPA.</p> <p>This draft EIR/EIS circulated prior to preparation and circulation of federal agency prepared Biological Assessments and Biological Opinions is "so inadequate as to preclude meaningful analysis," 40 C.F.R. [Section] 1502.9(a), because the public and decision-makers do not have the basic federal agency analyses required by the ESA to determine whether DWR's preferred alternative -- the BDCP Water Tunnels -- is even a lawful alternative, let alone an environmentally acceptable alternative.</p> <p>As mentioned above, the BDCP itself identifies stressors and threats to each of the five species. Common threats and stressors to the five species include habitat loss due to water conveyance systems and increasing water temperatures. The BDCP Water Tunnels will worsen these threats and stressors in each species' critical habitat. By diverting massive amounts of water from the Sacramento River, the BDCP will literally reduce the amount of habitat available to these five species in their critical habitats. Additionally, the massive diversion will reduce flow in the critical habitat and contribute to a further increase in water temperature.</p>	<p>and CESA Section 2081(b), and will therefore be subject to review by federal and state fisheries agencies.</p> <p>The combined environmental compliance processes for the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA) require that a Biological Assessment (BA) be completed and a Biological Opinion be issued prior to completing the NEPA Record of Decision. A completed BA is not required prior to issuing a Draft Environmental Impact Statement under NEPA.</p> <p>Under Section 7 of the Endangered Species Act (ESA), federal agencies whose actions may impact listed species are required to consult with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS), as appropriate, prior to taking any such action to ensure the action is not likely to jeopardize species listed under the ESA or result in destruction or adverse modification of critical habitat. At the end of consultation, USFWS and/or NMFS will complete a biological opinion, setting forth an opinion detailing how the agency action affects the species or its critical habitat.</p> <p>The lead agencies believe that the EIR/EIS is complete in its 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.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1611	105	<p>Taking the water and flows away from the Endangered and Threatened fish species would not insure their survival let alone insure their recovery and delisting. On-the-ground habitat restoration is not a lawful substitute under the ESA for maintaining the critical habitat of and in the waters of the Sacramento River, sloughs, and Delta.</p> <p>The reduction of water and flows and increase in water temperature are adverse modifications of critical habitat. The BDCP ignores all the conservation measures, including critical habitat designations, National Marine Fisheries Service and U.S. Fish and Wildlife Service have taken to protect five federally listed species. If approved, the BDCP will undo years of conservation efforts, adversely modify critical habitat, and further jeopardize the continued existence of five listed species. Approval of the BDCP would violate the ESA. Consequently, the BDCP Water Tunnels are not a permissible project under the ESA.</p>	<p>The EIR/EIS discloses the effects of each alternative, including the new Proposed Project, Alternative 4A, on species and their habitats, as presented in Chapters 11 and 12 of the EIR/EIS. No decision on the EIR/EIS will be made until ESA consultation is complete. The biological opinions will describe the USFWS' and NMFS' opinions about the potential to jeopardize species or adversely affect designated critical habitat.</p> <p>The Proposed Project was developed to meet the standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. For more information regarding purpose and need of the Project please see Master Response 3.</p>
1611	106	<p>Just as the inadequate draft EIR/EIS violates NEPA, the draft EIR/EIS is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment are precluded which also violates the California Environmental Quality Act (CEQA). 14 Code Cal. Regs. [Section] 15088.5(a)(4). As the California Supreme Court said in Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal.4th 412, 449 (2007), "Especially given the sensitivity and listed status of the resident salmon species, the County's failure to address loss of Cosumnes River stream flows in the Draft EIR 'deprived the public . . . of meaningful participation' [citation] in the CEQA discussion. (See CEQA Guidelines, Cal. Code Regs., tit. 14, [Section] 15065, subd. (a)(1)[potential substantial impact on endangered, rare or threatened species is per se significant].)"</p> <p>In the absence of answers to basic questions including ESA questions about jeopardy of listed fish species and adverse modifications of designated critical habitats, the draft BDCP EIR/EIS is not sufficient for informed review by the public and the decision-makers. It will be necessary at minimum under the ESA, NEPA and CEQA for the federal and state agencies to prepare, issue, and circulate for public review a new draft EIR/EIS concurrently with and integrated with Biological Assessments and Biological Opinions. 40 C.F.R. [Sections] 1502.9(a); 1502.25(a) (NEPA); 14 Code Cal. Regs. [Sections] 15065(a)(1); 15088.5(a)(CEQA). Then, and only</p> <p>then, would the public and the decision-makers have the opportunity to engage in meaningful analysis of a preferred project alternative and informed comparison with other alternatives.</p> <p>Finally, we reiterate that the BDCP Water Tunnels project is in fact prohibited by the ESA because it would adversely modify designated critical habitat for at least five endangered and threatened fish species. The fact that the ESA required consultations would result in determinations in the Biological Assessments and Opinions that the preferred project alternative is prohibited by the ESA does not justify the unlawful evasion and postponement of the consultations.</p>	<p>An RDEIR/SDEIS was developed and circulated in 2015, which included 3 additional Alternatives including the new Proposed Project, Alternative 4A. The evaluation of the effects of Alternative 4A are included in the RDEIR/SDEIS and this Final EIR/EIS. Alternative 4A would not serve as a habitat conservation plan/natural community conservation plan (HCP/NCCP) under ESA Section 10 and the NCCPA. Instead, Alternative 4A, as the California WaterFix proposed action, will be subject to incidental take authorization under ESA Section 7 and CESA Section 2081(b), and will therefore be subject to review by federal and state fisheries agencies.</p> <p>The combined environmental compliance processes for the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA) require that a Biological Assessment (BA) be completed and a Biological Opinion be issued prior to completing the NEPA Record of Decision. A completed BA is not required prior to issuing a Draft Environmental Impact Statement under NEPA.</p> <p>Under Section 7 of the Endangered Species Act (ESA), federal agencies whose actions may impact listed species are required to consult with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS), as appropriate, prior to taking any such action to ensure the action is not likely to jeopardize species listed under the ESA or result in destruction or adverse modification of critical habitat. At the end of consultation, USFWS and/or NMFS will complete a biological opinion, setting forth an opinion detailing how the agency action affects the species or its critical habitat.</p>
1611	107	<p>The BDCP and the Draft EIR/EIS violates ESA Section 10.</p> <p>The BDCP will undeniably require agency consultation and Incidental Take Permits under Sections 7 and 10 of the Endangered Species Act (ESA). This comment focuses solely on the Section 10 process. Existing pumping operations in the Delta require these permits; and the proposed massive additions in infrastructure assure that any new operations will also require the permits. Yet despite the certain need for these permits, the BDCP proponents</p>	<p>Alternative 4A has been developed in response to public and agency input. Alternative 4A would not serve as a habitat conservation plan/natural community conservation plan (HCP/NCCP) under ESA Section 10 and the NCCPA. Instead, Alternative 4A, as the California WaterFix proposed action, will be subject to incidental take authorization under ESA Section 7 and CESA Section 2081(b), and will therefore be subject to review by federal and state fisheries agencies.</p> <p>The Proposed Project has been developed with the goals of minimizing and avoiding incidental take of listed</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>have not properly engaged in the Section 10 process. The haphazard and incomplete nature of both the Plan and the accompanying Draft EIR/EIS insures that neither the U.S. Fish and Wildlife Service nor the National Marine Fisheries Service should issue the required ITPs.</p> <p>Under Section 10 of the Endangered Species Act, otherwise lawful activities can be granted exceptions that allow for the "taking" of listed species. 16 U.S.C. [Section] 1539(a)(1)(B) (West 2014). The exceptions allow for the development of lands that would otherwise be blocked in order to protect species. However, there still exist procedural protections that ensure development does not run rampant over endangered animals. The BDCP proponents have failed in fully complying with these measures.</p>	<p>species to the maximum extent practicable. Chapter 11, Fish and Aquatic Resources, and Chapter 12, Terrestrial Biological Resources, EIR/EIS, describe effects of the proposed project and several alternatives on fish and wildlife species in the Plan Area.</p> <p>Section 7 requires that federal agencies, in consultation with the federal fish and wildlife agencies ensure that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat.</p> <p>Where the alternative does not include preparation of an HCP, ESA compliance for construction and operation of water intakes in the north Delta and associated conveyance facilities would be achieved solely through Section 7. For these alternatives, USFWS and NMFS would not issue a permit and would not act as a lead agency for NEPA compliance. Where Section 7 is the ESA compliance strategy, USFWS and NMFS will assume roles as cooperating agencies for purposes of the NEPA review.</p> <p>Reclamation would be the lead federal action agency for Section 7 compliance where a non-HCP alternative is selected. Reclamation's Section 7 compliance would be expected to also address the Section 7 compliance needs for the USACE permit actions. In cooperation with DWR, Reclamation would prepare a biological assessment (BA) for submission to USFWS and NMFS requesting formal consultation under ESA Section 7.</p> <p>A biological opinion is not required prior to the release of the Draft BDCP/CWF EIR/EIS. For the Proposed Action, the USFWS and NMFS will conduct an internal ESA section 7 consultation prior to issuance of a 2081(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 United States Bureau of Reclamation (Reclamation) to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project.</p> <p>Please also see responses to 1611-108 and 1611-109.</p>
1611	108	<p>In order for an Incidental Take Permit to be issued, the applicant must submit a valid conservation plan. 16 U.S.C. [Section] 1539(2)(a) (West 2014). In order to be considered valid, the conservation plan must include the projected impacts of anticipated take, minimization steps, alternatives to take, and "such other measures that the Secretary may require." 16 U.S.C. [Section] 1539(2)(a)(i)-(iv) (West 2014). Once the application is submitted, National Marine Fisheries Service or U.S. Fish and Wildlife Service must make findings that "the taking will be incidental," the taking will be minimized "to the maximum extent practicable," that there will be "adequate funding," and that "the taking will not appreciable reduce the likelihood of the survival and recovery of the species." 16 U.S.C. [Section] 1539(2)(B)(i)-(iv). Only once these primary steps and the accompanying sub-steps have been completed can an ITP be issued.</p> <p>In addition to these basic requirements, the issuance of an ITP is, in itself, a "Federal action subject to [Section]7 of the ESA." (Habitat Conservation Planning and Incidental Take Permit Processing, U.S. Department of the Interior et al., p. 7-4-7-5 (1996)). As such, there must be a Biological Opinion issued that determines whether the issuance of the ITP will affect the conservation efforts of a listed species. 16 U.S.C. [Section]1536(c). Because the [Section]10 process and the [Section]7 process related to the Bureau of Reclamation require a Biological Opinion, a joint opinion can be issued. (Habitat Conservation Planning and Incidental Take Permit Processing, U.S. Department of the Interior et al., p. 3-2 (1996)). Once all of these steps have been completed, NMFS or USFWS can make the required findings, and the FWS and NMFS can make a final decision on the issuance of Incidental Take Permits. Only if all of</p>	<p>The Proposed Project has been developed with the goals of minimizing and avoiding incidental take of listed species to the maximum extent practicable. Chapter 11, Fish and Aquatic Resources, and Chapter 12, Terrestrial Biological Resources, in the EIR/EIS, describe effects of the Proposed Project on fish and wildlife species in the Plan Area. Section 7 requires that federal agencies, in consultation with the federal fish and wildlife agencies, ensure that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat.</p> <p>A biological opinion is not required prior to the release of the Draft BDCP/CWF EIR/EIS. 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 have initiated consultation with the United States Bureau of Reclamation (Reclamation) to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project. The Proposed Project is going to mitigate for impacts and restore habitat for fish and wildlife listed in Chapters 11 and 12 of the EIR/EIS. Under the Proposed Project only federal and state listed species and fully protected state listed species are covered in the EIR/EIS. Impacts that are going to potentially occur during the implementation timeline are fully disclosed with its associated mitigation measure to decrease the severity of said impact to covered species.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the application requirements are met and all required findings are issued can an ITP be legally issued. As a Habitat Conservation Plan, the BDCP does not meet the requirements set forth for application package or for NMFS or USFWS to make the required findings.</p>	
1611	109	<p>Purposeful limitation of take discussion in the application for an Incidental Take Permit:</p> <p>The BDCP fails to meet several requirements. Chief among the examples of BDCP failures, again, regards the delta smelt. In the BDCP, the discussion of the delta smelt and associated take of the species is extremely limited. The document primarily deals with entrainment of the delta smelt in the proposed north-of-Delta facilities. (See Plan, Ch. 5, 5.2-37-38) (for a table listing biological objectives for the delta smelt); (See generally Plan, Ch. 5, 5.5-1) (including 5.5.1-1 for a summary of overall effects). Very little unbiased discussion is given to other forms of take, including critical habitat modification. (Plan, 5.5.1-35) (Following discussion of minimal take factors, focusing primarily on entrainment, states, "the BDCP has the potential to reduce take of delta smelt through entrainment ... [and] has the potential to great population size.").</p> <p>The disproportionate amount of space and discussion given a single issue of take is contradictory to the letter of the law and the intent of the Section 10 permitting process. The BDCP's focus on entrainment as the primary source of take and as the biggest stressor on the smelt populations amounts to a smokescreen. The optimism regarding the level of entrainment take does nothing to allay concerns regarding the overall health and recovery of the delta smelt population. It is an effort in deflection. More critically, this type of discussion steers questions away from other forms of take by suggesting, with a sunny thoroughness, that the BDCP has taken a long look at the larger issue of take and species decline. The plan has not taken such a look and the failure to adequately address the issue of take, and minimization measures beyond entrainment screens is a fatal error in the application package under the Section 10 permit requirements.</p> <p>Inability of the Department of the Interior to make the required findings for Incidental Take Permit issuance:</p> <p>Beyond the failure of the application package, it is impossible for National Marine Fisheries Service or U.S. Fish and Wildlife Service to make all the required findings necessary to issue the ITP. There are significant issues regarding all four of the statutory requirements. The first issue deals with the whether the takings will be incidental to an otherwise lawful activity. When take is confined to entrainment at the pumping facilities, it may be possible for the finding to be made. However, this definition and discussion of take is far too narrow to be appropriately applied when considering the BDCP. The cumulative impacts of entrainment, flow disruption, changes in sediment and turbidity, and overall habitat modification are not sufficiently addressed. The BDCP Water Tunnels will circumvent natural through-Delta flow, further altering an ecosystem completely reshaped by human intervention. (EIR/EIS, 1A-1). This will have a significant impact on the flow, salinity, and overall habitat stability of the delta smelt. This habitat modification is not incidental to any activity -- it is the fundamental activity. In artificially limiting take discussions to entrainment and salvage, the BDCP has not provided enough relevant information for the Department of the Interior to determine if any BDCP activity will result in other forms of take. This deflection away from serious changes in critical stressors on the delta smelt onto a single issue means that the DOI cannot make an informed finding, and the HCP should not be validated.</p>	<p>Please see Master Response 5.</p> <p>With respect to the discussion of take of delta smelt (and other species), the Proposed Project (Alternative 4A) is consistent with the FWS and NMFS SWP/CVP Biological Opinions in focusing on direct means of incidental take, principally entrainment at water diversions. USFWS and NMFS would develop more detailed estimates of take during their development of incidental take limits as part of their ESA section 7 consultations on the Proposed Project. Beyond the specific discussion of take, the EIR/EIS includes an analysis of the main attributes of importance to delta smelt and assessed the potential for the Proposed Project to beneficially or adversely affect the species. Therefore, while not necessarily focused upon in the discussion of take, factors such as the extent of the low salinity zone are considered important in the analysis and have led to important features of the Proposed Project such as the decision tree process. With regards to area of origin, please see Master Response 44 and for Adaptive Management see Master Response 33.</p> <p>Regarding the adequacy of the documentation to allow the Departments of the Interior (USFWS) and Commerce (NMFS) to make the required findings for incidental take permit issuance, the analyses to be included in the biological assessment prepared by Reclamation reflects coordination between the project proponents and the lead agencies; existing analyses continue to be refined, plus additional analyses are being developed, in coordination with the agencies in order to facilitate finalization of the Proposed Project and to provide FWS and NMFS sufficient information to make their required findings.</p> <p>With respect to the programmatic versus project-level portion of the comment, please see Master Response 2.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>A finding of "No Jeopardy":</p> <p>In addition to other requirements, Section 10 permits are also governed by the general [Section]7 standards, including the "jeopardy standard." (Habitat Conservation Planning and Incidental Take Permit Processing, U.S. Department of the Interior et al., p. 3-2 (1996)). This means that in order for an ITP to be issued, the take must be incidental AND there must be a "no-jeopardy finding for all affected federally listed species." (Id. at 3-2). The basis for the finding is, of course, the Biological Opinion issued by either the FWS or NMFS. Without a proper Biological Opinion dealing specifically with the BDCP, it should be impossible for the issuing agencies to grant the required ITPs.</p> <p>Issuance of an Incidental Take Permit (ITP) is required so long as the HCP application meets the requirements set forth in [Section] 10 (a)(2)(A) AND that it is determined by the Secretary of the Interior that, amongst other things, "the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild." ([Section] 1539(a)(2)(B)(i-v)). These vital criteria are not met under the BDCP.</p> <p>There are two primary areas where there are serious questions about the viability of the BDCP as a valid HCP: in ensuring the continued recovery of a listed species, and it taking all active mitigation measures. The reasons behind this failing are intertwined, and primarily have to do with the uncertainties expressed about the delta smelt (explored in much larger detail above) and flow criteria (for further detail, see comment focusing on Section 7 deficiencies). As presented, the BDCP has offered only vague hopes regarding the recovery of the delta smelt, rather than the concrete measures required for a valid HCP. As such, the DOI cannot issue the required findings, and the BDCP should not be issued the requested Incidental Take Permits.</p> <p>The BDCP adopts a programmatic approach rather than the appropriate project approach to ITP issuance:</p> <p>Finally, HCP Guidelines recognize that occasionally a programmatic approach to conservation serves the purposes of development and conservation. However, it also recognizes the limitations, and possibility for abuse, that this type of planning approach offers. In order to limit abuse of the, NMFS warns that programmatic HCPs may only be successful "when the activities being addressed are well-defined, similar in nature, and occur within a described geographical nature or at similar points in time." (Habitat Conservation Planning and Incidental Take Permit Processing, U.S. Department of the Interior et al., p. 3-39 (1996)).</p> <p>The larger Delta Plan has previously described the BDCP as a project, rather than a program. (Draft Delta Plan Program EIR, Ch. 23, 23-1). Yet despite this, it again has been structured and described as a programmatic document, rather than as a project document. The exception to this is CM1, which is the only major element given a full project treatment. In deferring or not producing required documents (including the Implementing Agreement and Biological Opinion) to coincide with the release of Draft EIR/EIS, the BDCP has attempted to adopt a programmatic approach. This is incompatible with the HCP guidelines. The project scope, timeframe, and impact are not well defined and therefore fail the HCP guidelines. As such, the plan must be redrafted to reflect the proper approach to ITP processing, and should not be granted permits at this time.</p>	

DEIRS Ltr#	Cmt#	Comment	Response
1611	110	<p>Ignoring the Concerns of the Independent Science Reviews:</p> <p>The failure of the Draft BDCP and Draft EIR/EIS to provide sufficient scientific data and the need for an external consultation process:</p> <p>For the future of the Delta, the California Water Code [Section] 85054 defines two coequal goals of providing a more reliable water supply and to protect, restore and enhance the Delta ecosystem. The proposals contained within the Draft Bay Delta Conservation Plan (BDCP) and the companion Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) have failed on this mandate. The Draft BDCP EIR/EIS are akin to someone being wheeled into an Emergency Room on a stretcher with a massive bleeding chest wound, being dressed with some loose gauze bandages, given two generic pain relievers, and being discharged. It is fraught with inconsistent, incomplete, uncertain, and inaccurate data. Furthermore, the most alarming issue is that these documented discrepancies are either neglected, ignored, minimized or spun in an attempt to make the Draft BDCP EIR/EIS documents appear to be sufficient enough to forego a formal Biological Assessment/Biological Opinion process as required by Section 7 of Endangered Species Act (ESA, 16 U.S.C [Section] 1536). The glaring omissions and inconsistencies, including Endangered Species Act (ESA) questions about jeopardy of listed fish species and adverse modifications of designated critical habitats, and lack of a commitment to engage in the Section 7 process have resulted in a set of documents that are not sufficient for informed review by the public and the decision-makers. Our concerns are mirrored in the recent independent science reports produced by the Delta Science Program (<a href="http://deltacouncil.ca.gov/science-program/about-science-program">http://deltacouncil.ca.gov/science-program/about-science-program</a>): BDCP Effects Analysis Review Panel Report, issued March, 17, 2014 (Attachment 1 <a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/Delta-Science-Independent-Review-Panel-Report-PHASE-3-FINAL-SUBMISSION-03132014_0.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/Delta-Science-Independent-Review-Panel-Report-PHASE-3-FINAL-SUBMISSION-03132014_0.pdf</a>); Delta Interior Flows and Related Stressors Workshop, April 16 and 17, 2014 (Attachment 2 <a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/21-Jonathan-Rosenfield-Impact-of-Altered-In-Delta-Hydrodynamics-an-Overview.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/21-Jonathan-Rosenfield-Impact-of-Altered-In-Delta-Hydrodynamics-an-Overview.pdf</a>); and the Delta Independent Science Board Review of the Draft EIR/EIS for the Bay Delta Conservation Plan, issued May 15, 2014 (Attachment 3 <a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/Attachment-1-Final-BDCP-comments.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/Attachment-1-Final-BDCP-comments.pdf</a>). Furthermore, The recent Ninth Circuit Court of Appeals decision in San Luis &amp; Delta-Mendota Water Auth. v. Jewell (San Luis v. Jewell No. 11-15871 9th Cir. Mar. 13, 2014) (<a href="http://cdn.ca9.uscourts.gov/datastore/opinions/2014/03/13/11-15871.pdf">http://cdn.ca9.uscourts.gov/datastore/opinions/2014/03/13/11-15871.pdf</a>) discusses the importance of the Biological Opinion and the goals of the ESA. Based upon these scientific reports, related materials, and the Court of Appeals decision, we reiterate the concerns we have voiced and detailed in previously submitted comment letters that it is necessary at minimum under the ESA, NEPA and CEQA for the federal and state agencies to prepare, issue, and circulate for public review a new draft BDCP EIR/EIS concurrently with and integrated with Biological Assessments and Biological Opinions. 40 C.F.R. [Sections] 1502.9(a); 1502.25(a) (NEPA); 14 Code Cal. Regs. [Sections] 15065(a)(1); 15088.5(a)(CEQA). The adverse modification of critical habitats for five threatened and endangered fish species that would be caused by the proposed BDCP Water Tunnels is unconscionable. Extinction is forever. The BDCP Water Tunnels would adversely modify designated critical habits and thus promote species extinction and preclude species recovery.</p>	<p>For responses to comments related to the Delta Independent Science Board’s letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. The combined environmental compliance processes for the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA) require that a Biological Assessment (BA) be completed and a Biological Opinion be issued prior to completing the NEPA Record of Decision. A completed BA is not required prior to issuing a Draft Environmental Impact Statement under NEPA.</p> <p>Under Section 7 of the ESA, federal agencies whose actions may impact listed species are required to consult with the USFWS and NMFS, as appropriate, prior to taking any such action to ensure the action is not likely to jeopardize species listed under the ESA or result in destruction or adverse modification of critical habitat. At the end of consultation, USFWS and/or NMFS will complete a biological opinion, setting forth an opinion detailing how the agency action affects the species or its critical habitat. Please also see Master Response 5 for information regarding ESA compliance. Also see Chapter 11, Aquatics and Chapter 12, Terrestrial Biological Resources in the EIR/EIS for impacts to species.</p>
1611	111	Scientific Reviews & Reports: BDCP Effects Analysis Independent Review Panel Report	For responses to comments related to the Delta Independent Science Board’s letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please refer to the table of commenters and comment

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(March, 17, 2014):</p> <p>The Delta Science Program (DSP) convened a seven-member independent scientific panel tasked to review the scientific soundness of the BDCP Effects Analysis. This review, initiated in October of 2011, was conducted over three phases of the Draft BDCP documents in their various incarnations. The third phase was specifically focused on the December 2013 release of the Draft BDCP Chapter 5 Effects Analysis and all of its associated technical appendices. On March 17th, the independent scientific review panel (Panel) issued a very detailed report specifically indicating their concerns, questions, and recommendations regarding the Draft BDCP. Based on the Executive Summary of the report, Chapter 5, in many aspects, was found to be incomplete, inconsistent, highly uncertain, overly optimistic, leaning in favor of beneficial conclusions, and at times, inaccurate (See Attachment 1 Executive Summary).</p> <p>"...the Panel universally believes that by itself, Chapter 5: Effects Analysis inadequately conveys the fully integrated assessment that is needed to draw conclusions about the Plan, in part because of incomplete information on factors affecting the covered species."</p> <p>The Panel also addressed their concerns regarding the fragmented and inaccessible structure of the materials and found the foundation of the BDCP to be "weak in many respects" (Id. at p. 6):</p> <p>"...the lack of accessibility to information within the chapter or clear reference to supporting details inhibits rather than elucidates comprehension of the findings and thus conveys an unsatisfying 'trust us' message."</p> <p>The Panel voiced concerns, numerous times throughout the report, regarding the failure to acknowledge the high levels of uncertainty associated with BDCP's assumptions and predictions (Id. at p. 8). There is a troubling disconnect between the substantive information presented within the chapter and the information presented in the summary pages. Generally, the more beneficial outcomes are used in the conclusions. Often times, the BDCP fails to consider alternate scenarios. The Panel recommended that the Chapter 5 Net Effects Analysis needed greater objectivity:</p> <p>"Regardless of the degree of uncertainty and the number of linkages without analyses, the conclusion is often overstated as the most beneficial result."</p>	<p>letters to review responses to other letters submitted.</p>
1611	112	<p>Conclusions often overstated potential beneficial effects while neglecting to adequately address lower-end effects (Id. at p. 15). The Independent Scientific Review Panel [the Panel] found critical information gaps and questioned why life cycle models were not developed for the specific purpose of evaluating BDCP effects on each of the covered species. The Panel provided a list of recommendations, including a directive to complete work on biological objectives (Id. at p. 18). What is most disconcerting is that with regard to the endangered and threatened fish populations (e.g., salmonids, delta smelt, and green sturgeon) in the context of habitat restoration, the Panel found that the BDCP continued to overstate beneficial effects (Id. At p. 25). The Panel continued to stress the need for additional information and clarification to address the gaps and uncertainties for the covered fish species. Another glaring concern was the missing, yet critical, information (such as exclusion of some relevant life cycle models). Failure to include this information resulted in the inability to properly address negative net effects on salmonids and steelhead. No</p>	<p>For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please refer to the tables of commenters and comment letters to review responses to other letters submitted.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		justification was provided for the exclusion of this critical information (Id. At p. 31).	
1611	113	<p>The Panel (Independent Scientific Review Panel) detailed the inconsistencies and inaccuracies set forth in the technical appendices, such as Appendix 5-F - Biological Stressors on Covered Fish. Specifically, the range estimate in predation effects due to the north Delta diversion "is deceptive and technically incorrect" (Id at p. 68). In the Executive Summary section of their Report, the Panel urges the BDCP to "make a commitment to the fundamental process, and specifically the required monitoring and independent science review, not just the concept of adaptive management" (Id. At p. 9). Unfortunately, it appears that this very detailed Report may be ignored by the BDCP staff. In a letter dated April. 1, 2014, John Laird, Secretary for Natural Resources, acknowledges the Report and commends the panel on their hard work and recognition of the uncertainties in the BDCP, however, he fails to mention or address the numerous and troubling major concerns, inconsistencies, inaccuracies identified by the Panel. Nor does he purport to answer any of the questions presented (<a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/AR-M550U-20140401-141126.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/AR-M550U-20140401-141126.pdf</a>). Furthermore, his letter appears to be dismissive of the Panel's recommendations as he states:</p> <p>"We appreciate the recommendations from the panel in this area. However, we must ultimately draw conclusions and take action based on our current understanding and interpretation of the best available science notwithstanding the fact that there remains uncertainty"</p> <p>The Panel provided a plethora of valuable and detailed constructive recommendations and criticisms, designed to improve a severely flawed BDCP. Based on the Panel's Report, it is clear that an Endangered Species Act (ESA) consultation is needed. At November 7, 2013 meeting with the federal agency BDCP representatives, it was confirmed that no final or even draft Biological Opinion has been prepared by National Marine Fisheries Service (NMFS) or U.S. Fish and Wildlife Service (USFWS) with respect to the impacts of the operation of the BDCP on the five listed species of threatened/endangered fish or their critical habitats.</p> <p>Failure to comply with the relevant and required state and federal regulations and guidelines for the Draft BDCP EIR/EIS is a violation of ESA, NEPA and CEQA and an inexcusable disservice to the public as it deprives the public and decision-makers of the needed analyses, therefore, preventing any semblance of a meaningful review.</p>	<p>Master Response 5. The EIR/EIS analyzes all alternatives, including Alternative 4A.</p> <p>For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please refer to the table of commenters and comment letters to review responses to other letters submitted.</p>
1611	114	<p>Delta Interior Flows and Related Stressors Workshop (April 16 and 17, 2014):</p> <p>The Delta Science Program convened an independent panel workshop on Delta interior flows and stressors on April 16 and 17, 2014 (<a href="http://deltacouncil.ca.gov/science-event/10470">http://deltacouncil.ca.gov/science-event/10470</a>). Although the focus of the workshop was not specifically the draft BDCP EIR/EIS, several of the panelists presented scientific data that was directly relevant for analysis of the draft BDCP EIR/EIS and impacts to covered fish species. Concerns regarding negative impacts due to new conveyances, such as the proposed tunnel under the BDCP, were repeatedly expressed (<a href="http://deltacouncil.ca.gov/delta-science-program-workshop-interior-delta-flows-and-related-stressors-presentations">http://deltacouncil.ca.gov/delta-science-program-workshop-interior-delta-flows-and-related-stressors-presentations</a>). Specifically, Bay Institute Conservation Biologist, Jonathan Rosenfeld, Ph.D. presented on the impact of altered in-Delta hydrodynamics. Reduced inflows and increased exports would have a direct negative impact on several threatened</p>	<p>All issues raised by commenter are recognized in the 2013 Draft BDCP effects analysis and discussed at length in that document.</p> <p>The EIR/EIS analyzes all alternatives, including Alternative 4A. Under the analysis of the new Proposed Project in the EIR/EIS, these impacts are recognized and analyzed. The biological assessment prepared by Reclamation and submitted to USFWS and NMFS for consideration in developing biological opinions reflect outcomes of an interagency consultation between Reclamation, USFWS, and NMFS.</p> <p>For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please refer to the tables of commenters and comment letters to review responses to other letters submitted.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>and endangered fish species, including but not limited to, direct mortality ("salvage"), pre-screen mortality, altered behavioral cues resulting from altered hydrology increasing in-Delta mortality, and low dissolved oxygen levels (See Attachment 2 p. 5). Furthermore, high entrainment losses for Delta smelt would persist under the proposed BDCP (Id. at p. 18). Similar negative impacts are expected for Longfin smelt and Chinook salmon (See <a href="http://deltacouncil.ca.gov/delta-science-program-workshop-interior-delta-flows-and-related-stressors-videos">http://deltacouncil.ca.gov/delta-science-program-workshop-interior-delta-flows-and-related-stressors-videos</a>). Despite the compelling and disconcerting scientific data presented at this two day workshop, that is clearly relevant for any changes being proposed to the Delta, the BDCP staff has not responded to or addressed these concerns. This reaffirms Friends of the River's (F.O.R.) concerns regarding the deficiencies in the current Draft BDCP EIR/EIS and the necessity of addressing these alarming issues by properly engaging in the legally required consultation process for obtaining Biological Assessments (BAs) and Biological Opinions (BOs).</p>	
1611	115	<p>Delta Independent Science Board Review of the Draft EIR/EIS for the Bay Delta Conservation Plan (May 15, 2014):</p> <p>The Delta Independent Science Board (DISB), pursuant to the Delta Reform Act of 2009 [Section] 85320(c), is mandated to review the draft BDCP EIR/EIS. On May 15, 2014, DISB submitted their review focused on analyzing the scientific data and methodologies used in the draft BDCP EIR/EIS and the validity of the conclusions reached as a result of that process. (See Attachment 3, Cover Letter). According to the DISB, the science presented in the draft BDCP EIR/EIS "falls short of what the project requires" and if the issues and concerns, as raised in the detailed review, are not addressed it "may undermine the contributions of BDCP to meeting the co-equal goals for the Delta" (Id.). The DISB listed major concerns and found that several broad areas of the draft BDCP EIR/EIS to be scientifically incomplete or inconsistent (Id. at pgs. 5-9). Some of the major concerns:</p> <ul style="list-style-type: none"> <li>-Expectations for the effectiveness of conservation actions are too optimistic.</li> <li>-Uncertainties are inconsistently or incompletely addressed.</li> <li>-The potential effects of climate change and sea-level rise are underestimated.</li> <li>-Confounding effects of linkages and interactions among species, landscapes, and the proposed actions themselves are insufficiently considered.</li> <li>-Several important effects are neglected (i.e., exclusion of important geographical areas such as San Pablo Bay and San Francisco Bay, or levee failure and maintenance issues, focusing on potential economic benefits of increased water production for agricultural interests without addressing the environmental impacts on crops and water quality).</li> <li>-Descriptions of the alternative conveyance structures, operations, and environmental impacts do not facilitate informative comparisons.</li> </ul> <p>Although the DISB report had a broader focus, they did also review the Independent Panel's detailed Chapter 5 Effects Analysis report from March 17, 2014 (See Attachment 1 analysis above) and concurred with the major findings (See Attachment 3 p. 9). Both panels shared some of the same concerns regarding failure to adequately convey the sources and effects of uncertainty in the data, disconnect between the appendices and the substantive</p>	<p>For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. Please refer to the tables of commenters and comment letters to review responses to other letters submitted.</p> <p>Please refer to Master Responses 38 and 41 regarding the size, organization of the environmental documents, and public education/information developed to assist readers.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		chapters, and poor organization without clear and concise summaries (Id at p. 10).	
1611	116	<p>Urgent need for a formal consultation process:</p> <p>On May 29th, 2014 the Delta Stewardship Council (DSC) heard presentations on the scientific review reports cited above, in addition to a presentation and report submitted by DSC's independent consultant, ARCADIS (Attachment 4, <a href="http://deltacouncil.ca.gov/docs/council-meeting/2014-05-22/delta-stewardship-council-may-29-30-2014-meeting-agenda-item-9-attac">http://deltacouncil.ca.gov/docs/council-meeting/2014-05-22/delta-stewardship-council-may-29-30-2014-meeting-agenda-item-9-attac</a>). Incidentally, the ARCADIS report mirrors some of the same concerns identified in the other science reports such as uncertainties, overstatement of benefits, overly optimistic timelines and benefits of habitat restoration, as well as failures to address impacts to in-Delta users of the Delta water supplies and concerns regarding levee failures (Id at p. 3). Upon receiving these reports and presentations, Randy Fiorini, DSC Chair, submitted DSC's formal comments to the BDCP staff addressed to Ryan Wulff, including the aforementioned reports on June 24, 2014 (Attachment 5, <a href="http://deltacouncil.ca.gov/sites/default/files/documents/files/BDCP%20Comments%20Cover%20Letter%20and%20Final%20BDCP%20EIR-5%20Comments.pdf">http://deltacouncil.ca.gov/sites/default/files/documents/files/BDCP%20Comments%20Cover%20Letter%20and%20Final%20BDCP%20EIR-5%20Comments.pdf</a>). The DSC stresses the key concerns and issues identified in the reports and submits recommendations to address, among other key issues, the inconsistencies, uncertainties, impacts to water quality, evaluation of alternatives, impacts to aquatic species, preservation of the Delta as a place, and use of realistic timelines for habitat restoration. Despite the alarming concerns identified in the reports cited above and further emphasized in the DSC's formal comment letter, the BDCP staff has not issued any public statement or press release responding to the concerns identified by the DSC. Unfortunately, the Correspondence section of the BDCP website was shut down, effectively depriving the public access to important information that may assist in evaluating the draft BDCP EIR/EIS., so this information would not be posted there. However, the The BDCP staff do continue to post supportive documents and opinion letters on the BDCP's Blog and News sections. These science reports are a necessary and valuable analysis tool and emphasize the many problems and issues that are evident in the draft BDCP EIR/EIS and the need for a proper external consultation process in compliance with state and federal regulations.</p> <p>The "Your Questions Answered" section of the BDCP website (<a href="http://baydeltaconservationplan.com/AboutBDCP/YourQuestionsAnswered.aspx#PCRR">http://baydeltaconservationplan.com/AboutBDCP/YourQuestionsAnswered.aspx#PCRR</a>) purports to answer the question of whether or not a Biological Opinion is needed for the BDCP:</p> <p>"Is a Biological Opinion required prior to the release of the Draft BDCP?</p> <p>A Biological Opinion is not required prior to the release of the Draft BDCP.</p> <p>For the BDCP, the USFWS and NMFS must conduct an internal ESA section 7 consultation related to their issuances of incidental take statements to DWR for the BDCP. These federal agencies will coordinate the ESA consultation process and other environmental review processes, such as the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), consistent with federal regulations. In addition, the USFWS and NMFS will consult with the United States Bureau of Reclamation (Reclamation) to complete Biological Opinions or a joint Biological Opinion prior to the issuance of any federal incidental take statement or federal action to carry out the BDCP. "</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For detailed responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>No further explanation is provided. Has this process even started? Is there a reason the process is being conducted internally? Are there documents or reports that are being generated from this process? Have the parties involved in this process reviewed and assessed the independent scientific reports? The BDCP staff claims that this is an open planning process and they are committed to sharing the information with the public, however, as we have learned, some important documents, necessary for a meaningful public understanding and review, such as the Implementing Agreement, were not released until May 30, 2014 until the BDCP staff was pressured through a Public Records Act Request. In contrast to the incomplete and/or missing BDCP planning documents, the Lower Colorado Multi-Species Conservation Plan (LCR-MSCP) operates with transparency. Similar to the BDCP, The LCR-MSCP is also a Habitat Conservation Plan which provides ESA coverage for both federal and non-federal activities. Among other things, the planning documents also include a BA, an EIS/EIR, the BiOp, and a Funding and Management Agreement (<a href="http://www.lcrmscp.gov/steer_committee/regulatory_compliance.html">http://www.lcrmscp.gov/steer_committee/regulatory_compliance.html</a>). There has been no discussion or commitment from the BDCP staff to obtain these documents. Without such a commitment, the BDCP will not have the proper legal framework for compliance and implementation activities. In light of the concerns expressed in the scientific reports, it is imperative for the BDCP to engage in a proper consultation process that is transparent instead of a mystery internal process.</p>	
1611	117	<p>Failure to post comments on BDCP website:</p> <p>This section pertains to the California Resources Agency, California Department of Water Resources (DWR) and the Bureau of Reclamation's recent decision to stop posting public comment letters and other vital information on their jointly hosted BDCP website (<a href="http://baydeltaconservationplan.com">baydeltaconservationplan.com</a>) just after issuance of the public drafts of the BDCP Plan and EIR/EIS on about December 13, 2013.</p> <p>When our country was formed, people peaceably assembled in order to hear each other's views on matters of public importance. Informed public debate is the hallmark of our democracy. The modern equivalent of the venerable town hall/public park assembly is the public comment process via the Internet on proposed major government actions. Americans have fought wars to retain these freedoms. The BDCP proponent agencies, however, seem intent upon wresting these hard-earned freedoms from the public. These freedoms have been suppressed by these agencies' decision to stop posting critical comment letters on the established project website. If we lived in Communist China, we might expect thoughtful or critical public comment to be suppressed. We do not expect this in the United States of America.</p>	<p>Since 2007, DWR and Reclamation have sought to include as many voices into the planning process as possible and has demonstrated that commitment with an unprecedented level of public involvement. More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41. More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p>
1611	118	<p>The BDCP Water Tunnels are another effort by the same Governor and others to develop the old peripheral canal project that was defeated by a referendum vote in 1982. The Water Tunnels are one of the most controversial proposed public works projects in California history. There were no public hearings or meetings on the public BDCP Drafts so that the public could hear what others have to say. Instead, there were "open houses" where the public could ask questions of BDCP representatives. These were settings of all-powerful rulers and lowly subjects, not the spirited give and take of American democracy.</p>	<p>Please refer to Master Response 36 for comments related to how the proposed project differs from the historical peripheral canal project.</p> <p>Since 2007, DWR and Reclamation have sought to include as many voices into the planning process as possible and has demonstrated that commitment with an unprecedented level of public involvement. More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41. More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p>
1611	119	<p>Website change regarding posting of comments:</p> <p>The webpage confirming receipt of BDCP comments advised "Additional information can be</p>	<p>More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>found at <a href="http://www.baydeltaconservationplan.com">www.baydeltaconservationplan.com</a>." What can be found on the BDCP website are the 40,000 pages of the consultant prepared Plan and EIR/EIS documents which the federal Bureau of Reclamation, National Marine Fisheries Service (NMFS) and United States Fish and Wildlife Service (USFWS), have previously called "advocacy" and/or "biased" documents for the BDCP Water Tunnels project. (Federal Agency Release, Bureau of Reclamation Comments p.1; NMFS Comments p.2; USFWS Comments p.1, July 18, 2013).</p> <p>What cannot be found on the BDCP website is the January 14, 2014 Friends of the River initial comment letter explaining that the Water Tunnels project "is not a permissible project under the Endangered Species Act (ESA) because it would adversely modify designated critical habitat for at least five Endangered and Threatened fish species." (p.1). What also cannot be found on the BDCP website is the Responsible Exports Plan alternative submitted by the Environmental Water Caucus or the earlier version of that alternative, the Reduced Exports Plan, that was submitted by the EWC as far back as April and December of 2012 and February of 2013. In fact, no comments are included on the BDCP website. FOR has been forced to obtain the comments under the Freedom of Information Act (FOIA). FOR does what the government of a free country should do: posting all comments regardless of whether FOR agrees or disagrees with the comments. FOR posts the comments at <a href="http://www.friendsoftheriver.org/bdcpcomments">www.friendsoftheriver.org/bdcpcomments</a>.</p> <p>To explain the change in policy regarding posting of correspondence on the BDCP website, the following language now appears under "Correspondence": "In order to maintain the integrity of the formal public review period, incoming correspondence will not be available via the website beginning December 13, 2013 to the close of the public comment period April 14, 2014." (See <a href="http://baydeltaconservationplan.com/library/Correspondence.aspx">http://baydeltaconservationplan.com/library/Correspondence.aspx</a>, emphasis added.)</p> <p>The obvious purpose of refusing to post comment letters is to hide critical comments from the public. It limits the information available to the public to the pro-BDCP Water Tunnels documents posted in December 2013. This restriction is an unconstitutional and unlawful exercise of viewpoint discrimination by the State agencies, the Resources Agency and DWR, aided and abetted by the participating federal agencies, NMFS which is receiving the comments but not posting them on a website, and USFWS and Reclamation. The First Amendment prohibits viewpoint discrimination. This restriction is also an unlawful denial of public access to the comments prohibited by the California Constitution. Furthermore, the decision to withhold posting of comments is a direct violation of the environmental full disclosure purposes of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).</p>	
1611	120	<p>The closing of the forum to critical comment is contrary to the promise of encouraging public participation.</p> <p>The State claims that "The BDCP encourages public participation." (BDCP website under "Correspondence".) Secretary Laird of the California Resources Agency and numerous other state officials have claimed that the BDCP process is open and transparent. Those claims of encouraging public participation and openness are false. By refusing to post critical comment letters, the speech of the commenters is being silenced. The public does not see the other side of the Water Tunnels story.</p> <p>Meanwhile, the proponent agencies continue to tout the Water Tunnels on the website. (Spanish language posting, January 3, 2014 entitled Breve Informativo; English language</p>	<p>More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41. More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p> <p>In regards to the removal of signs on State Highway 160, the California Department of Water Resources is a water purveyor and is not involved in the rule-making or enforcement of the rules and regulations of other state agencies such as Caltrans.</p> <p>The proposed project was developed to meet the standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria the proposed project is designed to improve</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Overview Presentation posting, January 20, 2014). The project proponents have been free to misrepresent, advocate, speculate and omit unpalatable facts from the website while silencing responsive correction.</p> <p>Instead of encouraging public participation, the agencies are doing everything in their power to discriminate against and exclude views opposing the Water Tunnels from the public website forum they have created. This is part of a pattern of suppression of free speech that was displayed in the Summer of 2013 when Caltrans employees trespassed on private property in the Delta to remove signs carrying the message "Save the Delta! Stop the Tunnels!" That thuggery by the State only stopped after it was brought to widespread public attention by media coverage and rallies protesting the sign removals.</p> <p>Claiming that taking more water away from the fish will be good for the fish, that taking more freshwater away from the Delta will be good for the Delta and that a water grab for the benefit of the exporters is really a conservation plan is false propaganda intended to deceive and confuse the public. This pattern and practice of viewpoint discrimination by the BDCP proponent agencies is the strongest self-indictment that could be made of the environmental destruction and economic waste threatened by the Water Tunnels project. The government would not be trying to suppress the speech of project opponents if it actually believed its own claims about the asserted benefits of the project.</p>	<p>native fish migratory patterns and allow for greater operational flexibility.</p>
1611	121	<p>The viewpoint discrimination on the BDCP website violates the First Amendment.</p> <p>The First Amendment of the United States Constitution provides in pertinent part that there shall be no law "abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances." Similarly, the California Constitution commands that "A law may not restrain or abridge liberty of speech or press" and the people have the right to "assemble freely to consult for the common good." Cal. Const., Art. 1, [Section] 2(a); [Section] 3(a). "In a public forum, by definition, all parties have a constitutional right of access and the state must demonstrate compelling reasons for restricting access to a single class of speaker, a single viewpoint, or a single subject. When speaker and subject are similarly situated, the state may not pick and choose." Perry Educ. Ass'n. v. Perry Local Education Ass'n, 460 U.S. 37, 55 (1983). "Any access barrier must be reasonable and viewpoint neutral [citations]." Christian Legal Soc. Chapter of the University of Cal., Hastings Coll. of the Law v. Martinez, 130 S.Ct. 2971, 2984 (2010). "When the government targets not subject matter, but particular views taken by speakers on a subject, the violation of the First Amendment is all the more blatant. [Citation.] Viewpoint discrimination is thus an egregious form of content discrimination. The government must abstain from regulating speech when the specific motivating ideology or the opinion or perspective of the speaker is the rationality for the restriction." Rosenberger v Rector and Visitors of University of Virginia, 515 U.S. 819, 829 (1995).</p> <p>Under the current regime, only those viewpoints that the government chooses will be posted on the BDCP website. For example, the website continues to include blogs purporting to debunk alleged "Myths" about the BDCP, and other materials written to promote BDCP and discount public concerns. (See, e.g., <a href="http://baydeltaconservationplan.com/news/blog/14-01-10/Correcting_Stubborn_Myths_Part_II.aspx">http://baydeltaconservationplan.com/news/blog/14-01-10/Correcting_Stubborn_Myths_Part_II.aspx</a>.) This blog suggests that a comment on the blog may be provided by clicking on a link. ("Click here to contact us with your questions or comments about the BDCP Blog.") Yet that link is the same link to the email address for submitting formal public comments on the Plan and EIR/EIS (BDCP.comments@noaa.gov). As explained clearly on the BDCP website,</p>	<p>More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41. More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		such comments will not be posted. The exclusion of critical comments from the BDCP website at the same time as the government agency proponents continue to post materials that promote their viewpoint that BDCP is a worthwhile project violates the First Amendment prohibition of viewpoint discrimination in forums created by the government.	
1611	122	<p>The denial of the right of access to critical comments violates the California Constitution</p> <p>The California Constitution provides in pertinent part that "The people have the right of access to information concerning the conduct of the people's business, and, therefore, the meetings of public bodies and the writings of public officials and agencies shall be open to public scrutiny." Cal. Const. Art. 1, [Section] 3(b)(1). Moreover, any authority "shall be broadly construed if it furthers the people's right of access, and narrowly construed if it limits the right of access." Cal. Const. Art. 1, [Section] 3(b)(2).</p> <p>"Given the strong public policy of the people's right to information concerning the people's business (Gov.Code, [Section] 6250), and the constitutional mandate to construe statutes limiting the right of access narrowly (Cal. Const., art. 1, [Section] 3, subd. (b)(2), all public records are subject to disclosure unless the Legislature has expressly provided to the contrary." <i>Sierra Club v. Superior Court</i>, 57 Cal.4th 157, 166 (2013) (internal quotation marks deleted).</p> <p>The complexity of the BDCP and the volume of documents being circulated for public review to explain that complexity make review challenging even for professionals. For an average member of the public, the job is almost impossible. The public's ability to be informed regarding this project is facilitated by having access to comments being made by others during the review process, including non-profit environmental groups and other public agencies. The refusal to publish comment letters on the website as they come in denies the public the right of access to the comments in violation of the California Constitution.</p>	<p>As a result of public involvement and comment the proposed project has been revised several times to reflect input from Delta communities, recreational users of the Delta and the environmental agencies, and independent scientists just to name a few. More information on DWR has developed the project in an open and transparent manner is provided in Master Response 41.</p> <p>The size and complexity of these draft documents reflect an unprecedented effort to analyze a proposed project under both state and federal laws for habitat conservation plan along with 15 alternatives.</p> <p>Although the science and analyses that support the EIR/EIS is complex, the lead agencies have made every attempt to present the information in plain language and in a clear format with emphasis on the information that is useful to the public, agencies, and decisionmakers. More information on the ways in which the document was made accessible for meaningful public review is provided in Master Responses 38, 39, 40, and 41.</p>
1611	123	<p>The exclusion of environmental information contrary to the opinions of the project proponents violates NEPA and CEQA</p> <p>NEPA and CEQA are both "environmental full disclosure laws." <i>Silva v. Lynn</i>, 482 F.2d 1282, 1284 (1st Cir. 1973); <i>Cmtys. for a Better Env't v. City of Richmond</i>, 184 Cal.App.4th 70, 88 (2010). Both laws require that an agency "use its best efforts to find out all that it reasonably can" about the subject project and its environmental impacts. <i>Barnes v. U.S. Dept. of Transp.</i> 655 F.3d 1124, 1136 (9th Cir. 2011); <i>Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova</i>, 40 Cal. 412, 428 (2007).</p> <p>Interfering with review by members of the public of comments made by other members of the public is environmental concealment, not disclosure, and is calculated to prevent the public from finding out all that it reasonably can about the subject project and its impacts.</p> <p>CEQA provides that "notwithstanding any other provision of law" the record of proceedings "shall include, but is not limited to," written documents submitted by any person relevant to findings and all written correspondence submitted to the respondent public agency with respect to compliance with CEQA or the project. Public Resources Code [Section] 21167.6(e)(3), (7). The NEPA Regulations require that federal agencies make comments received under NEPA available to the public pursuant to the provisions of the Freedom of Information Act and that they shall be provided without charge to the extent practicable. 40</p>	<p>More information on how DWR and Reclamation have developed the project in an open and transparent manner is provided in Master Response 41. More information about the public outreach conducted during the comment review periods for the DEIR/EIS and RDEIR/SDEIS is provided in Master Response 40.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>C.F.R. [Section] 1506.6(f).</p> <p>The CEQA Regulations provide that:</p> <p>"Public participation is an essential part of the CEQA process. Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal consistent with its existing activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities. Such procedures should include, whenever possible, making environmental information available in electronic format on the Internet, on a web site maintained or utilized by the public agency. "</p> <p>(14 Code Cal. Regs [Section] 15201(emphasis added).)</p> <p>Instead, the BDCP proponent agencies have selectively published information favorable to the project on their website while concealing what they consider to be unfavorable information. Making the comments available only after the comment period has closed makes a mockery of the promise of a fair, transparent and open process. Members of the public will have no opportunity to learn information provided by those with concerns about the BDCP in time to help them develop their own timely comments, including suggested alternatives to the project. The exclusion of comments from the website violates the environmental full disclosure purposes of both NEPA and CEQA, and the CEQA regulation requiring the posting of environmental information on the agency's website.</p> <p>The exclusion of public comments from the BDCP website violates the First Amendment, California Constitution, NEPA and CEQA. This violation can only be remedied by the BDCP agencies posting all comments on the BDCP website and then providing a new public review and comment period on the Draft EIR/EIS, Plan, and Implementing Agreement so that the public can see the information and contentions about the problems that would be created by new upstream conveyance.</p>	
1611	124	<p>The Implementing Agreement (IA) is unlawful.</p> <p>"The overall goal of the BDCP is to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework." ((IA "IA", 3, also 14 (all cites to page number). Also, the Plan claims it "Provides for the conservation and management of Covered Species within the Plan Area through the preservation, restoration, and enhancement of aquatic, riparian and associated terrestrial natural communities and ecosystems that support these Covered Species and through other conservation actions." (IA 3).</p> <p>Contrary to the assertion that "Reclamation has incorporated the BDCP into a biological assessment to support a Section 7 consultation for reclamation's actions within the Plan Area and the resulting Integrated Biological Opinion" (IA 3-4), Reclamation has not prepared a biological assessment and the Integrated Biological Opinion has not been prepared. The IA refers to a "subsequent Integrated Biological Opinion." (IA 22). Under a heading entitled "Role of Bureau of Reclamation in the BDCP" admissions are made that: "Federal agencies, such as Reclamation, comply with the Endangered Species Act (ESA) through the Section 7 consultation process and not through the Section 10 HCP permitting process. Given the scale of Reclamation's CVP operations and the degree to which these operations are coordinated with the SWP, BDCP has been designed to address both SWP and CVP operations in the Delta. Reclamation will enter into a Memorandum, or similar agreement,</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). Alternative 4A would not serve as a habitat conservation plan/natural community conservation plan (HCP/NCCP) under ESA Section 10 and the NCCPA. Instead, Alternative 4A, as the California WaterFix proposed action, will be subject to incidental take authorization under ESA Section 7 and CESA Section 2081(b), and will therefore be subject to review by federal and state fisheries agencies. Please also see Master Response 5. For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		with the Parties that sets out Reclamation's roles and responsibilities pursuant to the BDCP and establishes processes to ensure that Reclamation's actions are implemented in a manner consistent with the Plan." (IA 15). This puts the cart before the horse. Since the Plan is to govern Reclamation actions, ESA Section 7 consultation needs to come before, not after, preparation of the Plan.	
1611	125	The false assertion is made that "DWR and the participating SWP/CVP Contractors are agreeing to substantial commitments of water, land, other natural resources, financial resources, human resources and other assets to provide for the conservation and management of the Covered Species, their habitats and other natural communities, in exchange for the Fish and Wildlife Agencies providing take authorizations, and the Assurances" (Implementation Agreement [IA] 4). In fact, no commitments are made at all.	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). Please also see Master Response 5. For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1611	126	The inaccurate finding by the California Department of Fish and Wildlife (CDFW) that the BDCP satisfies the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009 including Water Code [Section] 85320 is included. (Implementing Agreement 14). Also included is the assertion that the BDCP EIR provides a comprehensive review and analysis of "A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan ... and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses." (Implementing Agreement 14). In fact, none of that has been done.	For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5. For information regarding the proposed project and alternatives please see Master Response 4. For information regarding compliance with the Delta Reform Act, please refer to Master Response 31.
1611	127	The Implementation Agreement [IA] takes away what the BDCP may appear to give in terms of conservation of covered species ["[I]n the event of a direct conflict between the terms of this Agreement and the BDCP, the terms of this Agreement shall control." (IA 15)].  The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service [NMFS] give away their authority to carry out a future Integrated Biological Opinion/conference opinion to protect covered species that become listed in the future, in advance ["...USFWS and NMFS will not request, impose, recommend, or require mitigation, conservation, compensation, enhancement, or other protection for such Covered Species, beyond that expressly provided in this Agreement." (IA 19)].	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). Alternative 4A, as the California WaterFix proposed action, will be subject to incidental take authorization under ESA Section 7 and CESA Section 2081(b), and will therefore be subject to review by federal and state fisheries agencies. Please also see Master Response 5. For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1611	128	In the face of declining fish populations, admitted uncertainties and adverse effects, as well as implicit denial of the undeniable fact that reducing flows is bad, not good, for the fish, the Implementing Agreement parties agree that "Through the implementation of the Plan, including adjustments made through the adaptive management process, Permittees will satisfy their obligation to achieve the biological goals and objectives." (IA 24). The all-knowing prophets then give away all powers and obligations to continue protecting the fish. "Unless otherwise specified in the Plan or this Agreement, failure to achieve a biological goal (s) and/or objective(s) shall not be a basis for a determination by the Fish and Wildlife Agencies of non-compliance with the Plan or for the suspension or revocation of the Permits, provided the Permittees are properly implementing the BDCP and are in compliance with this Agreement and the terms and conditions of the Permits." (IA 24). This is so even though "The Parties agree that a key area of scientific uncertainty concerns the volume of Delta outflow that is necessary to advance the biological goals and objectives for both delta smelt and longfin smelt." (IA 25). The Parties also admit "that other covered fish species, including salmonids and sturgeon, are affected by outflow." (IA 26). The decision	For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.  Also see Master Response 33 for information regarding adaptive management and monitoring.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>tree process and adaptive management process are declared to be the answer to the uncertainties. (IA 25).</p> <p>The IA admits the obvious that "Ecological conditions in the Delta are likely to change as a result of future events and circumstances that may occur during the course of the implementation of the BDCP." (IA 44).</p>	
1611	129	<p>In spite of the declining fish populations and repeated references to possible future extinctions as a result of changing conditions in the Effects Analysis (Chapter 5) of the BDCP Plan, the IA helps carry out the future extinctions by providing regulatory assurances including: "That is, if unforeseen circumstances occur that adversely affect species covered by an HCP or an HCCP, the Fish and Wildlife Agencies will not require of the permit holder any additional land, water, or financial compensation nor impose additional restrictions on use of land, water, or other natural resources without their consent." (IA 48).</p> <p>"Pursuant to the No Surprises Rule ... and provided that the BDCP is being implemented consistent with the terms of this Agreement, the Plan, and the Federal Permits, the U.S. Fish and Wildlife Service and National Marine Fisheries Service shall not require the Permittees to provide additional land, water, or other natural resources, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level provided for under the BDCP, this Agreement and the Federal Permits with respect to Covered Activities without the consent of the Permittees." (IA 50). Even though the No Surprises Rule does not apply to federal agencies, USFWS and NMFS report to limit Reclamation's ongoing responsibilities under [Section]7 of the ESA to the maximum extent allowed by law. (IA 50, 51).</p> <p>Moreover, "Under the ESA regulations and this Agreement, if unforeseen circumstances arise during the life of the BDCP, USFWS and/or NMFS may not require the commitment of additional land or financial compensation, or additional restrictions on the use of land, water, or other natural resources other than those agreed to in the Plan." (IA 51).</p> <p>California Department of Fish and Wildlife similarly gives away its powers and responsibilities for the 50 year term of the permit. (IA 52, 53).</p> <p>Though the IA purports to recognize the applicability of ESA [Section] 7 to possible future actions, it provides "unless otherwise required by law or regulation, USFWS and NMFS will not require through the Section 7 consultation additional land, water or other natural resources, or financial compensation or additional restrictions on the use of land, water, or other natural resources for Covered Activities and Associated Federal Actions beyond the measures provided for under the BDCP, the Implementing Agreement, the Permits, and the Integrated Biological Opinion." (IA 74, 75). Even for Biological Opinions issued in connection with projects that are independent of the Covered Activities and Associated Federal Actions, "USFWS and NMFS agree to make every effort to avoid rendering opinions or taking actions that would cause additional restrictions on the use of land, money, or water for the Authorized Entities with respect to their obligations under the BDCP or this Agreement." (IA 75). "If critical habitat is designated within the BDCP Plan Area subsequent to issuance of the permits, no compensation, mitigation, or minimization measures will be required of the Permittees as a result of the designation." (IA 76).</p> <p>The Parties "acknowledge that ESA recovery plans have no effect on the implementation of the BDCP" and that "With respect to any recovery plan applicable to any Covered Species</p>	See responses above.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>within the Plan Area that is developed after the approval of the BDCP the parties agree that: Recovery plans cannot require any additional land or financial compensation or otherwise diminish the take authorization for Covered Species granted to the Authorized Entities pursuant to the Federal Permits or the Integrated Biological Opinion." (IA 77).</p>	
1611	130	<p>Violations of [Endangered] Species Act (ESA) in the Draft Implementing Agreement (IA):</p> <p>A) Brief Summary</p> <p>The Draft IA violates the provision of ESA which requires a conservation plan to describe certain steps of a conservation plan in order to be issued an incidental take statement. The Draft IA does not detail the steps that will be taken to monitor, minimize, or mitigate impacts, nor ensure funding for the implementation of such steps. Many details and decisions are avoided and left to the Adaptive Management Program, which itself suffers from generalized assertions that provide no real guidance. Once again, the Draft IA is an incomplete document that does not provide the necessary guidance to implement the BDCP.</p> <p>B) Legal Background</p> <p>An IA is needed for ESA compliance; the ESA requires a permit for the incidental take of a species to include "a conservation plan, based on the best scientific and commercial data available" which details "the steps that will be taken to monitor, minimize, and mitigate such impacts, and the funding available to implement such measures." 40 C.F.R. [Section] 222.307(b)(5)(iii). The Draft IA covers the implementation of the conservation plan, and therefore needs to detail the monitoring, mitigation steps as well as the funding for implementation of these steps.</p> <p>C) Discussion</p> <p>Monitoring and Minimizing Impacts:</p> <p>The Draft IA relies heavily on the Adaptive Management Team to provide the necessary steps for monitoring impacts on Covered Species. The Draft IA has provisions stating the "Covered Activities relat[ing] to the development and operation of water conveyance infrastructure" will include "monitoring of Covered Species." (IA, 9.2, 21). The Adaptive Management Team is the primary group responsible for the biological monitoring program, which is supposed to help determine whether "conditions warrant a change to a Conservation Measure or a biological objective." (IA, 10.3.2.1, 29; 10.3.4, 31.) The "effects monitoring will provide the basis for evaluating the impacts of Covered Activities, Associated Federal Actions, and Conservation Measures on Covered Species, including the amount of take of Covered Species ..." (IA, 10.4.1, 39).</p> <p>However, "metrics and protocols" for monitoring will only be developed after the BDCP has been approved and begun implementation. (IA, 10.4.1, 39.) An "Annual Monitoring and Research Plan" is to be prepared every year to identify "the type, scope, nature and timing of the proposed monitoring" as well as the "rationale and need for such activities," but the Permit Oversight Group determines whether to adopt the monitoring plan or not. (IA, 10.4.3, 39).</p> <p>The provisions included in the IA are broad and provide no real guidance on the steps for</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), please refer to responses above.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>monitoring covered species. Furthermore, the fact that protocols for monitoring do not have to be developed before the Plan is authorized means that Plan proponents are trying to pass the BDCP without ever having to detail the steps they will take to monitor the impacted species. This is violation of ESA's requirements, as the Draft IA must detail the steps it will take to monitor the impact on Covered Species.</p> <p>Less attention is paid to minimizing impacts on Covered Species. The Conservation Strategy of the Draft IA states the BDCP includes "biological goals and objectives and conservation actions that appropriately minimize and mitigate the potential effects of Covered Activities and Associated Federal Covered Species." (IA, 10.0, 23). Later, the Draft IA states "if critical habitat is designated within the BDCP Plan area subsequent to issuance of the permits, no ... minimization measures will be required of the Permittees," allowing the Permittees to avoid minimizing impacts on covered species on certain habitat. (IA, 20.1.6, 76).</p> <p>Overall, the Draft IA provides very little detail on the steps that will be taken to monitor and minimize impacts on Covered Species, as is required by the ESA. The monitoring and minimization of impacts of Covered Species is left largely to the Adaptive Management program. However, there is no real guidance on what the Adaptive Management Program will involve. The Draft IA provides too little detail on the Adaptive Management Program's monitoring and minimizing to satisfy the ESA.</p>	
1611	131	<p>Mitigation of Impacts:</p> <p>The Implementing Agreement (IA) states the Plan "includes measures to ... mitigate to the maximum extent practicable the effects on the Covered Species." (IA, 2.1.8, 3). Most of the language describing mitigation of impacts comes from the section on 'Conservation Strategy,' which consists of "(1) biological goals and objectives; (2) Conservation Measures; (3) adaptive management; and (4) monitoring." (IA, 3.17, 6). However, the Conservation Strategy chapter merely serves to provide assurances that the Conservation Measures will mitigate impacts to Covered Species without going into any detail about the Conservation Measures. After stating the Conservation Measures "have been developed in accordance with the principles of conservation" and "are expected to be sufficient to achieve the biological goals and objectives," the Draft IA does not detail the steps the Conservation Measures will take, and instead says the Conservation Measures are described in Chapter 3.4 of the BDCP. (IA, 10.2, 24). Furthermore, the Draft IA tries to qualify the assurances of mitigation by stating the "Parties agree that a key area of scientific uncertainty" exists over the conditions "necessary to advance the biological goals and objectives."</p> <p>The Draft IA puts forth the concept that the Conservation Measures are adequate to ensure mitigation of impacts on Covered Species; however, outside science reviews of these assertions have cast doubt on the Conservation Measure's capability. The Delta Independent Science Board's (DISB) review of the BDCP listed the 'effectiveness of conservation actions' as "too optimistic;" stating the Conservation Measures represented "an implausible standard of perfect for such a complex problem." (Review of the Draft BDCP EIR/EIS and Draft BDCP, p. 5). Furthermore, the DISB found "few of the many uncertainties in DEIR/DEIS are acknowledged in conclusions about impacts and mitigation actions." (Review of the Draft BDCP EIR/EIS and Draft BDCP, Appendix A). Overall, the DISB found "far greater uncertainty about the mitigation," concluding that questions surrounding mitigation success were "not adequately addressed," and "simply referring to adaptive management as a way to deal with such uncertainties is not sufficient." (Review of the Draft BDCP EIR/EIS and Draft BDCP, p. B-52). The Delta Science Program Independent Review Panel (DSPIRP)</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4 5. For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>found similar inadequacies, concluding "many of the critical justifications behind the supposed benefits of the conservation measures are highly uncertain," and stated "the default burden to ensure Covered Species benefit, if not recovery, rests on adaptive management." (BDCP Effect Analysis Review, Phase 3, p. 17).</p> <p>The DISB and DSPIRP both found the BDCP's detail and assurances of Conservation Measures' success wanting, and realized much is left to the adequacy of the adaptive management program. Adaptive management specifics have been left to the IA, yet the Draft IA contains very little detail on how the Adaptive Management Program will be carried out, as described earlier in this comment. Troublingly, the Adaptive Management Team is allowed to change or even eliminate biological goals and conservation measures. (IA, 10.31, 29). This, along with the fact neither the Draft IA nor the corresponding chapters in the DEIR/DEIS specify mitigation steps to reduce impact, presents a violation of ESA's mandates to detail the steps taken to mitigate impacts on Covered Species.</p>	
1611	132	<p>Funding Assurances:</p> <p>The Draft Implementing Agreement asserts that the Parties do not have to guarantee funding "be secured at the time of permit issuance," and instead lowers its assurances to "reasonably certain to occur during the course of Plan implementation," which is over the term of 50 years. (IA, 13.0, 45). The Draft IA provides no certain areas of funding, instead relying on "historically ... reliable means" from which "funding will likely be drawn. (Id.). However, the Draft IA asserts that the BDCP "is designed to demonstrate that...funding will be adequate for such purposes and will be forthcoming." (IA, 13.2, 47). Unfortunately, there are no guarantees that the funding is certain, much less adequate.</p> <p>The funding for ensuring steps to reduce impact on Covered Species is inadequately represented throughout the Draft IA. The purpose of an IA is to provide some certainty of the mechanics of a conservation plan. Here, the Draft IA provides no certainty of funding for the BDCP. The Parties have violated the ESA [Endangered Species Act] by failing to ensure funding for monitoring, minimizing, and mitigating impacts on Covered Species.</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), see responses above.</p> <p>For funding and other BDCP related comments please refer to Master Response 5.</p>
1611	133	<p>Violations of the Natural Community Conservation Planning Act (NCCPA) in the Draft Implementation Agreement (IA):</p> <p>A) Brief Summary</p> <p>The Draft IA violates several provisions of the NCCPA and presents an incomplete picture. Instead of providing the necessary framework for understanding how the BDCP will be implemented, the Draft IA provides little specificity, defers necessary findings for a later date, and includes provisions that insulate Permittees from necessary oversight. These violations are most frequently seen in the provisions dealing with funding, specifying conservation and habitat measures, and the suspension/revocation process.</p> <p>B) Legal Background</p> <p>The purpose of the NCCPA is to "sustain and restore those species and their habitat...that are necessary to maintain the continued viability of those biological communities impacted by human changes to the landscape" [California Fish &amp; Game Code Section 2801(i)]. The Act outlines the specific findings and standards required to satisfy NCCPA, including a provision requiring an IA, which contains several additional requirements that must be fulfilled</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA)</p> <p>Please see Master Response 5.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>[California Fish &amp; Game Code Section 2820(b)].</p> <p>The NCCPA requires the IA to provide details about the BDCP and its environmental consequences specified in nine different provisions, including conservation implementation, suspension/revocation of the Incidental Take Permit (ITP), funding, and modifying the IA [California Fish &amp; Game Code Section 2820(b)(1-9)]. The Draft IA violates all four categories and is impermissibly defective.</p> <p>C) Discussion</p> <p>Violation of Conservation Provisions of the NCCPA:</p> <p>The NCCPA requires an IA to include provisions "defining species coverage, including any conditions of coverage" [California Fish &amp; Game Code Section 2820(b)(1)]. The Draft IA does nothing more than provide overbroad and vague assurances without specifying definite actions to ensure that species will be adequately covered. For instance, the Draft IA states the "BDCP and this Agreement provide a comprehensive, habitat-based approach to the protection of Covered Species by focusing on the land and water necessary to provide for the long-term conservation and management of the Covered Species" (Implementation Agreement, 20.1.6, 76). Instead of fulfilling the NCCPA's requirement to define the conditions of species coverage, the Draft IA makes oblique references to "actions associated with restoration" and "desired biological outcomes" (Implementation Agreement, 9.2, 21 and 10.1, 23). Section 9.2, titled 'Covered Actions' would be an ideal place to specify coverage; however, it merely mentions "activities related to the development and operation of water conveyance infrastructure" (Implementation Agreement, 9.2, 21). The only 'specifics' provided are the "development and operation of new Delta conveyance facilities...to transport and deliver water to State Water Project and Central Valley Project" (Implementation Agreement, 9.2, 21).</p> <p>These provisions violate the NCCPA in two ways: first, they divide the complete definition of species coverage among multiple documents in the BDCP, but the NCCPA requires the IA itself to define and include conditions of species coverage. Second, the Draft IA is too vague to satisfy the condition of "defining species coverage" at all. For example, the Draft IA itself does not even include a list of covered species; 'Exhibit A' is titled "List of Covered Species" in the Table of Contents, but is not actually included in the document (Implementation Agreement, vi).</p> <p>The Draft IA states that species coverage will be adequately defined once the public comment period is over (Implementation Agreement, 4.2, 12). This is a failure to provide a meaningful review opportunity. Defining species coverage after the public comment period has ended undermines the purpose of public review.</p>	
1611	134	<p>Habitat Reserves and Conservation of Covered Species:</p> <p>The Natural Community Conservation Planning Act next requires the Implementing Agreement to include provisions for establishing "long-term protection of any habitat reserve" or other measures to provide "equivalent conservation of covered species." Cal. Fish &amp; G. Code [Section] 2820(b)(2). The Draft IA specifies reserve system lands are to be permanently protected by fee title or conservation easement. (IA, 11.4.1, 42). This is provided for in the Draft IA by the development of conservation easement templates by the Authorized Entities, a group made up of "the Director of DWR, the Regional Director for</p>	<p>With regards to proposed Governance issue of the BDCP, please see Master Response 44 and 5. For the proposed project 4A, please refer to Master Response 28 Operational Criteria and 33, Adaptive Management.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Reclamation, a representative of the SWP contractors and a representative of the CVP contractors." (IA, 15.3.1, 58). The original templates are subject to approval by the Fish and Wildlife Agencies, who can then designate templates to be amended without further approval of the Agencies. (IA, 11.4.1, 42). Essentially, the Authorized Entities will have the power to change certain designated habitat templates without any oversight. This violates the NCCPA's requirements to ensure long-term protection of habitat reserves because the Authorized Entities will be able to remove certain habitat protections, with no oversight from the fish and wildlife agencies. The assurance that habitats will be maintained is eliminated by giving the Authorized Entities this level of control.</p>	
1611	135	<p>Four-Year Lapse until Management:</p> <p>There is a four year gap from the acquisition of land for habitat reserves until these lands actually have to start being managed to help conserve species. (IA, 11.4.2.1, 43). Four years is an unacceptable time frame to wait until conservation measures are implemented, as that would allow land to continue being used with no active conservation methods taking place. This could result in further deterioration of the Covered Species. Also, changes to these management plans can be made internally by the Implementation Office (IO), with no oversight by fish and wildlife agencies. (IA, 11.4.2.1, 43). This provision would allow the IO to be able to change the habitat conservation plans without any oversight from fish and wildlife agencies.</p> <p>Furthermore, the specifics of the management and "general enhancement" techniques to be used are omitted from the IA and instead included in the Conservation Measure 11 in Chapter 3 of the BDCP. (IA, 11.4.2, 43). This is another example of the unacceptable way the BDCP is piecemealing information between multiple documents. In order to ensure conservation and long-term protection of habitat and covered species, the Implementing Agreement itself must include the specifics and techniques the BDCP proposes. Instead, details are left out of the IA and put in another BDCP document. This violates the NCCPA's requirements for the IA to establish and ensure conservation measures.</p>	<p>For progress related to habitat restoration please refer to EcoRestore efforts and DWR's fish restoration program.</p> <p>With regards to proposed Governance of the BDCP, please refer to Master Responses 5 and 44.</p>
1611	136	<p>Funding of Habitat Reserves:</p> <p>The funding provisions for the habitat reserves state that the Implementation Office must ensure that "non-wasting endowments" or a "substantial equivalent" is established. (IA, 11.4.1, 43). Once the Authorized Entities have secured enough funding to satisfy "certain conservation obligations" under the Plan and it is approved by the fish and wildlife agencies, additional funds cannot be required from the Authorized Entities. (IA [Section] 11.4.1, 43). No funding for long-term management is specified, and the "certain conservation obligations" that must be met are not defined or detailed what is required to satisfy them. The Draft Implementing Agreement provisions fail to clarify Permittees' commitments and therefore violate the Natural Community Conservation Planning Act 's requirements to ensure funding. This does not ensure funding for long-term habitat protection, which violates the NCCPA and could lead to more money being required from taxpayers.</p>	<p>Please see Master Response 5 to address funding issues raised in this comment.</p>
1611	137	<p>Rough proportionality on habitat/covered species and conservation measures:</p> <p>An Implementing Agreement [(IA)] must include provisions specifying what the California Department of Fish and Wildlife [(CDFW)] must do "if the plan participant fails to maintain rough proportionality between impacts on habitat or covered species and conservation measures." Cal. Fish &amp; G. Code Section 2820(b)(3)(B). The Draft IA states that if the</p>	<p>With regards to project impact mitigation, please see Master Responses 17 and 22.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Conservation Measures are implemented according to the implementation schedule and procedure set out in Chapter 6 of the BDCP, the CDFW is required to find that rough proportionality is satisfied. (IA, 11.1.1, 40). This is an underhanded way of forcing the CDFW to find that rough proportionality is maintained unless there is an explicit discrepancy with the implementation schedule. This presents a two-fold violation: it is another example of piecemealing necessary information in the Draft IA and Chapter 6 of the BDCP; and since the implementing schedule is likely written in vague terms, there will be no way to ever find a failure to maintain rough proportionality. For instance, Chapter 6 of the BDCP lists the implementation schedule of the Conservation Measures in several tables. Draft BDCP, 6-3, 6-4, 6-4, 6-5. The explanations often give "expected" timelines, and goals when facilities "will likely be completed." Draft BDCP, 6-3, 6-4. These are vague terms, and it would be nearly impossible for the CDFW to find an explicit discrepancy.</p> <p>This renders the fish and wildlife agencies' job in determining rough proportionality useless and gives the Permittees the power to implement their best interests without being held accountable to maintain rough proportionality. There is no real oversight by parties outside of the BDCP to help hold the Authorized Entities accountable. This violates Section 2820(b)(3)(B) of the Natural Community Conservation Planning Act (NCCPA) because the CDFW must be able to take action if it finds a lack of rough proportionality, but the provision of the Draft IA completely wipes out this ability.</p> <p>An IA must also "identify the conservation measures, including assembly of reserves where appropriate" as well as the "monitoring and management activities that will be carried out in rough proportion to the impact on habitat or covered species." Cal. Fish &amp; G. Code Section 2820(b)(9). The measurements that will be used to determine rough proportionality is maintained must also be included. Cal. Fish &amp; G. Code Section 2820(b)(9). Conservation measures are never specifically described in the Draft IA. Section 10.2 states that the measures have been developed in "accordance with the principles of conservation biology and address...ecological processes, environmental gradients, biological diversity, and regional aquatic and terrestrial linkages." (IA, 10.2, 24). The section then goes on to say that the conservation measures are described not in the Draft IA but in Chapter 3.4 of the BDCP. This violates the NCCPA's requirement to identify in the IA the conservation measures that will be used.</p> <p>Section 10 is labeled Conservation Strategy, and states the Strategy has been designed to achieve the BDCP's goals of "restoring and protecting ecosystem health, water supply, and water quality in the Delta within a stable regulatory framework." (IA, 10, 23). The Conservation Strategy states that biological goals and objectives reflect the expected ecological outcomes of the BDCP and its intended functions, but does not specify what these biological goals and objectives actually are. (Id.). Instead, they are left out and put in Chapter 3 of the BDCP. This violates the basic requirement of the NCCPA to actually identify the conservation measures and the Draft IA avoids describing the conservation measures throughout the entire document.</p> <p>As mentioned above, the Draft IA states that if the conservation measures are implemented in accordance with the implementation schedule that is set out in Chapter 6 of the Plan, the CDFW must find that there is rough proportionality as required by the NCCPA. (IA, 11, 40). As well as setting a pre-determined standard for the CDFW, the Draft IA also fails to satisfy the last clause of Section 2820(b)(9) to include measurements to determine whether rough proportionality is occurring. Stating that the CDFW must find rough proportionality is</p>	

DEIRS Ltr#	Cmt#	Comment	Response
		occurring does not equal including the measurements the agencies plan to use in the BDCP, and is a violation of the NCCPA's requirements.	
1611	138	<p>Adaptive Management:</p> <p>A key aspect of conservation implementation is the role of the adaptive management program, and the Implementing Agreement is required to contain provisions "ensuring implementation of the...adaptive management program." Cal. Fish &amp; G. Code [Section] 2820(b)(5). While the Draft IA discusses adaptive management, the provisions lack detail and certainty. (IA, 10.3 - 10.3.7.3, 29-38). The Draft IA discusses "new information and insight gained" to develop "alternative strategies," as well as affording the Plan "the flexibility to allow changes to be made to Conservation Measures." (IA, 10.3.1, 29). The language is broad and over-generalized. This lets the Adaptive Management Team make decisions "including the addition to or elimination of" the Conservation Measures and biological objectives without any oversight by the Fish and Wildlife Agencies. (IA, 10.3.1, 29). This assigns a huge amount of power to the Adaptive Management Team and will allow the Team to subvert the Conservation Measures and biological objectives if they do not appear to be in the Authorized Entities' best interests.</p>	Please refer to Master Response 33 Adaptive Management.
1611	139	<p>Violations of Suspension &amp; Revocation Provisions of the Natural Community Conservation Planning Act:</p> <p>The NCCPA requires specific terms and conditions to be included in the Implementing Agreement, which if violated, result in the suspension or revocation of the permit, in whole or in part. Cal. Fish &amp; G. Code [Section] 2820(b)(3). If certain provisions are violated, they invoke the overall suspension/revocation process outlined in the Draft IA. (IA, 22.4, 82).</p> <p>(a) Suspension/Revocation Process</p> <p>The Draft IA's suspension/revocation process itself is problematic. The process is invoked anytime the California Department of Fish and Wildlife determines the Permittees have "failed to fulfill their obligations under the BDCP, this Agreement, or the State Permit." (IA, 22.4, 82. If the CDFW finds circumstances to warrant suspension or revocation, it must follow a review process which is invoked by a Permittee and set forth in an entirely different section of the IA. The decisions reached at the end of the review process are non-binding, but getting a decision could take over six months from the time the CDFW determines the permit should be revoked. (IA, 115.8.2, 67). The process allows the Permittees to continue their unlawful actions as long as possible. Even more troublesome is the fact that the Draft IA states the review schedule can be adjusted "as necessary," seemingly giving anyone the power to adjust the schedule to delay the revocation process even further. (IA, 15.8.2, 67). This would allow the Permittees to delay the suspension or revocation of their State permit even when the regulatory agency has determined there is cause suspend or revoke the permit.</p> <p>A separate process is invoked if the CDFW finds the continued take of the species would lead to jeopardizing the continued existence of the species. The CDFW is given the power under the NCCPA to suspend or revoke any permit if it finds the take of the species is jeopardizing its survival. Cal Fish &amp; G. Code [Section] 2823. However, in the Draft IA, the CDFW cannot suspend the permit until there has been a 45-day remedial period, meaning that the Permittees can keep taking the covered species for over a month before a suspension of the Permit would even go into effect. (IA, 22.6, 83). Then, revocation cannot</p>	For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>happen until the non-binding review process from Section 15.8.2 is exhausted. (IA, 22.6, 83). This means even if the CDFW believes the continued take of a species will jeopardize its existence, it cannot suspend the permit for over a month and then cannot revoke the permit for over six months after that. This could be disastrous for the survival of several Covered Species' and exemplifies another BDCP deficiency in satisfying NCCPA's procedural requirements.</p>	
1611	140	<p>Violations of Funding Provisions of the Natural Community Conservation Planning Act:</p> <p>(a) Adequate Funding for Conservation Actions</p> <p>The Draft Implementing Agreement violates the NCCPA's requirements to ensure adequate funding for conservation measures. An IA must include "mechanisms to ensure there is adequate funding to carry out the conservation actions identified in the plan." Cal. Fish &amp; G. Code [Section] 2820(b)(8). The Draft IA contains different language, stating that all that is needed is to "establish that such funding is reasonably certain to occur during the course of Plan implementation." (IA, 13.0, 45. The Draft IA only references "various sources from which funding will likely be drawn," and does not even list the possible sources. (IA, 13.0, 45). It states the Permittees only agree to ensure the funds to "carry out their obligations under the BDCP." There are no assurances that funding will be adequate, just types of funding that are "typical" to these projects and "historically...reliable." (IA, 13.0, 45). This is a clear violation of the NCCPA's requirements to ensure funding. The Draft IA fails this provision by omitting any certainty of funding, which serves to highlight the many weaknesses of the Draft IA.</p> <p>(b) Suspension/Revocation for Lack of Funding</p> <p>There are terms and conditions listed in Section 2820(b)(3) of the NCCPA for which the violation of results in suspension or revocation of the permit. Cal. Fish &amp; G. Code [Section] 2820(b)(3). The first states the IA must contain provisions specifying the actions the department must take if the plan participant fails to provide adequate funding. Cal. Fish &amp; G. Code [Section] 2820(b)(3)(A). The Draft IA has a provision allowing the CDFW to suspend or revoke the State Permit if it determines the Authorized Entities are not providing adequate funding, pursuant to the review process earlier outlined. (IA, 13.2, 47). The CDFW must find that a funding shortfall exists AND that the shortfall either prevents specific actions from being implemented in a timely manner, as set out in Chapter 6, or that it prevents specific actions from being fully implemented, as described in the BDCP. (Id.). However, a Fish and Wildlife Agency is prohibited from suspending or revoking a permit if the funding shortfall is determined "likely to have no more than a minimal effect on the capacity of the Plan to advance the biological goals and objectives." (Id.). It is not stated outright who determines whether or not the shortfall is likely to have a minimal effect on the capacity of the Plan. This is a very vague sentence put in at the end of the section that could be used to get out of providing less funding originally promised. This violates the NCCPA because it takes away the CDFW's power to suspend or revoke a permit if there is a lack of funding.</p>	<p>For more information on the primary issues being raised with regard to the IA and funding, as well as a discussion of the current status of the IA, please see Master Response 5.</p>
1611	141	<p>141</p> <p>Violations of Modification Provisions of the Natural Community Conservation Planning Act:</p> <p>The NCCPA requires an Implementing Agreement to set out "procedures for amendment of</p>	<p>Please see Master Response 5 regarding the IA and responses provided above.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the plan and the implementation agreement." Cal. Fish &amp; G. Code [Section] 2820(b)(4). Section 23 of the Draft IA allows for administrative changes, minor modification, and formal amendments to the BDCP.</p> <p>(IA, 23, 84). Administrative changes that do not substantively change the purpose, intent, or terms of the Plan or IA can be made without modifying or amending the Plan or the IA. These administrative actions can include changing the representatives of member entities of the Stakeholder Council, the only area where Delta counties and communities have any representation. (Id.). This provision is harmful because it allows changing the Stakeholder Council, which is the only area where Delta communities have some sort of input in the BDCP's decision-making process. This could be used to get rid of members who do not subscribe to the Authorized Entities' viewpoints.</p> <p>Minor modifications are allowed as well, but are not supposed to involve changes that adversely affect Covered Species, the level of take, or obligations of the Authorized Entities. Minor modifications can include adjusting the conservation measures or biological objectives through the adaptive management program, transferring natural community acreage among the Conservation Zones, and transferring acreage between Resource Opportunity Areas. (IA, 23.2, 85). The Authorized Entities must agree to any proposed modification; if they cannot agree, the proposal is then processed as a formal amendment to the Plan. There is an ambiguity in the last paragraph of the minor modification section, which states that the Authorized Entities do not have to approve minor modifications that involve changes to the conservation measures or biological objectives that are adopted through the adaptive management process. (IA, 23.2, 86) (emphasis added). This could be used to pass dangerous changes to the Conservation Measures without the approval of the Fish and Wildlife Agencies. The adaptive management process allows the Authorized Entities to develop "alternative strategies" if "new information" pertaining to the Conservation Measures is discovered. (IA, 10.3.1, 29). If alternative strategies can include modifications to Conservation Measures, the Authorizes Entities are granted the power to change the Conservation Measures, which could potentially be very harmful to continued coverage of species.</p>	
1611	142	<p>Inconsistent Amendments or Plan/Project Adoption:</p> <p>A provision specifying actions to be taken if there is an amendment or adoption of a plan or project "that is inconsistent with the objectives and requirements of the approved plan" must also be included in the Implementing Agreement. Cal. Fish &amp; G. Code [Section] 2820(b)(3)(C). The Draft IA contains a clause that almost exactly mirrors this requirement, stating the CDFW can suspend or revoke the State Permit if the Permittees adopt, amend, or approve a plan or project that is substantially inconsistent with the approved Plan and without the concurrence of the CDFW. (IA, 9.5, 22) (emphasis added). The Draft IA attempts to raise the threshold required by the NCCPA to "substantially inconsistent," which is more difficult to meet. If the CDFW believes that a plan or project has been approved, adopted, or amended in a manner that is substantially inconsistent with the requirements of the BDCP, the CDFW meets with the Permittees and then provides written notice to the Permittees. (IA, 9.5, 22). Increasing the requirement that the CDFW must meet before suspension/revocation can be triggered represents an attempt by the BDCP to further ensure there will be plenty of leeway before the Fish and Wildlife Agencies can take any real action. This is a violation of the NCCPA because it adds an additional requirement that is not included in the statute itself.</p>	Please refer to Master Response 5 and previous responses above related to the IA.

DEIRS Ltr#	Cmt#	Comment	Response
1611	143	The Draft Implementing Agreement violates the Natural Community Conservation Planning Act provisions and avoids other provisions detailing descriptions of funding, conservation measures, and plan oversight. This results in a generalized and piecemealed document that provides very little guidance and subverts the requirements of the NCCPA. Specifically, there needs to be more detail and assurances when guaranteeing funding for the BDCP, and more detailed descriptions of how the IA will ensure conservation and habitat protection. Also, there are troubling issues throughout the IA that allow changes to the IA or aspects of the Plan with no oversight by the fish and wildlife agencies, a tactic that could be used to avoid the BDCP's conservation mandate. Overall, the Draft IA is an incomplete and incorrect representation of what the NCCPA requires.	With regards to oversight for the proposed project, please see Master Response 33, Adaptive Management and Monitoring.
1611	144	The Implementing Agreement becomes an especially dangerous document when one considers the Adaptive Management program put forth in the IA. While adaptive management in theory seems workable, in practice it allows for decisions to be made on the go without any real oversight or checks from fish and wildlife agencies. This, along with the regulatory assurances that guarantee water delivery south of the Delta and the "No Surprises" rule, allow for a lot of power to be locked into the Implementing Agreement. (IA, 14.1, 45).	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1611	145	The Implementing Agreement surrenders the fate of the listed fish species to the exporters. The BDCP agencies cannot do that. Beyond that, there must be a new BDCP Draft EIR/EIS, Plan and IA with a new public comment period on the Drafts before such an astonishing degree of agency authority is given away. The new Drafts must include a range of reasonable alternatives and alternatives to take reducing exports. Moreover, ESA Biological Assessments and formal consultations including preparation of Biological Opinions are required before, not after such giveaways.  This looks like a massive scandal in the works. The offices of Inspector General of the involved federal agencies must be involved now and given the opportunity to review the BDCP Plan and IA before, not after, adoption of the BDCP and the IA guarantees the unlawful extinctions of the listed fish species. Whether the consultants or the exporters like it or not, the ESA and NEPA are the law of the land.	For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1611	146	Adaptive management and the decision tree fail to cure the information deficiencies in the Draft Plan, EIR/EIS and Implementing Agreement.  Over and over throughout the Draft Plan, Draft EIR/EIS, and Draft Implementing Agreement adaptive management and the decision tree are referred to as the future procedures that will save the fish from all of the claimed "uncertainties" in the BDCP. Neither device cures the informational and analytical deficiencies in the BDCP documents under NEPA, CEQA, or the ESA.  Under NEPA, the regulations specify when the required environmental assessment must happen. 40 C.F.R. [Section] 1501.2 states in part:  Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. Each agency shall: ... (b) Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses. Environmental documents and appropriate analyses shall be	For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.  This comment also addresses the use of adaptive management and the decision tree in the EIR/EIS. Please see Chapter 3 in the Final EIR/EIS for a description of the Collaborative Science and Adaptive Management Program. Please see Master Responses 2, 5, 24, and 33 related to Adaptive Management Program; and Master Response 44 related to use of the Decision Tree.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>circulated and reviewed at the same time as other planning documents.</p> <p>(40 C.F.R. [Section] 1501.2.)</p> <p>In <i>Sierra Club v. Babbitt</i>, Plaintiffs challenged a reconstruction project by the National Parks Service (NPS) regarding Highway 140 from Yosemite. 69 F.Supp.2d 1202, 1211 (E.D. Cal. 1999). They sought to enjoin Defendants from taking any steps towards the continuation of the El Portal Road reconstruction project until NPS provides necessary consideration of all significant environmental effects in compliance with NEPA, WSRA [Water Supply Retention Agreement], NPOA [Northstar Property Owners Association], and the APA [American Planning Association]. Id. Their main cause of action focused on declaring that the EA, FONSI [Findings of No Significant Impact], and the BA [Biological Assessments] for the project were not in compliance with NEPA regulations 40 C.F.R. [Sections] 1500-1517.7. Id.</p> <p>Plaintiffs contended that Defendants failed to adequately define the Project. Id. At 1214. Plaintiffs claimed that the "design/build" method of construction used on the Project caused an inadequate description of the Project and prevented a sufficiently detailed analysis of both environmental values and effects of the project by NEPA.</p> <p>The court held that the draft EA spoke in generalities and contained few details of what would actually be done on the Project, thus making it impossible to relate project elements to project impacts. Id. Lacking was sufficient detail to understand the nature, extent and location of rock removal, tree removal, vegetation removal, rebuilding of guard walls, and construction of fills into the Merced River or riparian corridor. Id. The court found the "design/build" to violate NEPA in that Defendants failed to comply with the requirement in 40 C.F.R. [Section] 1501.2(b), that each agency shall "[i]dentify environmental effects and values in adequate detail so they can be compared to economic and technical analyses." Id. At 1218. Also, insufficient detail was provided to allow the public a meaningful opportunity to comment on the Project during the planning stages along with the existence of insufficient detail for Defendants' own experts to express an informed opinion and for Defendants to make an informed decision. Id.</p> <p>Adaptive management and a decision tree cannot be a substitution for the regulatory requirements of NEPA and CEQA. Promises to plan, collaborate, or manage toward compliance should environmental conditions degrade below the substantive management criterion are insufficient to survive judicial review. <i>Natural Res. Def. Council v. Kempthorne</i>, 506 F.Supp.2d 322, 387 (E.D. Cal. 2007) ("the absence of any definite, certain, or enforceable criteria or standards make its [adaptive management] use arbitrary and capricious under the totality of the circumstances"). In the case cited, the court faulted the protocol for failing to assure that the result of the process would be some kind of action taken to secure the continued existence of the smelt. <i>Natural Res. Def. Council</i>, 506 F.Supp.2d at 352.</p> <p>A promise to adaptively manage problems does not fulfill the NEPA requirement that agencies take a "hard look" at the impacts of their action. For instance, <i>High Sierra Hikers Ass'n v. Weingardt</i>, overturned a Forest Service decision to liberalize the rules limiting campfires in high country parts of a wilderness area. 521 F.Supp.2d 1065, 1090-91 (N.D. Cal. 2007) The court ruled that the agency could not rely on adaptive management to overcome an inadequate response to the problems raised in the record.</p> <p>Under CEQA the EIR's purpose is to inform the public and its responsible officials of the</p>	

DEIRS Ltr#	Cmt#	Comment	Response
		<p>environmental consequences of their decisions before they are made. Napa Citizens for Honest Gov't v. Napa Cnty. Bd. Of Supervisors, 91 Cal.App.4th 342, 355 (2001). The Public Resource Code has defined "Environment" to mean the physical conditions that exist within the area that will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance. Pub. Res. Code [Section]21060.5. Also, "Significant effect on the environment" is defined to mean a substantial, or potentially substantial, adverse change in the environment. Pub. Res. Code [Section] 21068; See Cmtys. For a Better Env't v. Cal. Res. Agency, 103 Cal.App.4th 98, 110 (2002)(invalidating CEQA guideline that set regulatory standards to determine whether project could have significant environmental effect). Thus, the EIR protects not only the environment but also informed self-government. Citizens of Goleta Valley v. Bd. Of Supervisors of Santa Barbara Cnty., 52 Cal.3d 553, 563-564 (1990).</p> <p>A project's environmental analysis is inadequate if it does not take into account the full range of "feasible" significant environmental effects. See Napa Citizens for Honest Gov't v. Napa Cnty. Bd. Of Supervisors, 91 Cal.App.4th 342, 381 (2001) (finding that because sources for water and resources for wastewater treatment identified in the EIR were uncertain, the EIR should have identified alternative sources and environmental consequences of tapping them; the EIR should have also discussed possible impacts the proposed project would have on steelhead trout, which had been identified as endangered species within the project area).</p> <p>"When the informational requirements of CEQA are not complied with, an agency has failed to proceed in 'a manner required by law' and has therefore abused its discretion. Save Our Peninsula Comm. V. Monterey Cnty. Bd. Of Supervisors, 87 Cal.App.4th 99, 118 (2001).</p> <p>The BDCP Draft Plan and Draft EIR/EIS violate the informational requirements of NEPA, CEQA and the ESA. Adaptive management and the decision tree do not cure the violations. The BDCP agencies must prepare a new Draft Plan, Draft EIR/EIS, and Draft Implementing Agreement and afford a new public review period based on sufficient environmental impact disclosure and analysis rather than deferring that to adaptive management and a decision tree that would follow project approval.</p>	
1612	1	<p>Solano County, as one of the five "Delta Counties," has been actively following the evolution of the BDCP since its inception. The County has in good faith commented as requested by BDCP proponents during drafting of administrative drafts, formally became a "cooperating agency" under the National Environmental Policy Act (NEPA) for purposes of participating in the environmental review of the BDCP, and participated in numerous meetings and workshops where BDCP was discussed. Through the process the County focused on providing constructive comments intended for drafters to understand local issues and circumstances relative to the BDCP and Solano County with the hope that the Plan would be modified to (1) reduce impacts to our local area and (2) provide full mitigation for any unavoidable impacts.</p> <p>Regrettably, in reviewing the formal draft BDCP, DEIR/EIS and Implementing Agreement, the County continues to find that the Plan has significant and far-reaching impacts that will erode the agricultural base that the County has spent decades trying to responsibly preserve. Furthermore, we see little evidence of consideration of Plan modifications, or earnest consideration of alternatives or consideration of meaningful mitigation responsive to reducing impacts of the BDCP on Solano County and the Delta region. These are all areas where many comments have been made in prior BDCP public forums from Solano County</p>	<p>The proposed project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations. The feedback was used to guide the development and subsequent revisions of the Proposed Project and its associated EIR/EIS to reflect concerns addressed from the various groups.</p> <p>Please see RDEIR/SDEIS Appendix A Chapter 14, Agricultural Resources, Impact AG-1 and Impact AG-2 and their associated mitigation measures for complete analysis of how the proposed project will effect and mediate important farmland in the Delta.</p> <p>Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and includes far less impact to agricultural acreage in the Delta.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		and many others in the Delta. In light of the current formal draft and the fact that there are few meaningful changes from the earliest drafts, we can only conclude that all of the outreach relative to the BDCP has been nothing more than a "check-off-the-box" exercise with a pre-determined outcome already in place. Hopefully, this comment process will amplify the significance of the local concerns and impacts and result in meaningful changes that respect local concerns.	
1612	2	The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:  The BDCP will result in the conversion of tens of thousands of the County's Delta agricultural lands. The resulting economic, environmental and social impact to the County and its agricultural base could be devastating. Yet little effort has been expended to reduce critical impacts of the BDCP on the County and the Delta region and mitigate for impacts that are unavoidable.	See Master Response 18 for information regarding agricultural impact mitigation. Please see Chapter 16, Socioeconomics, of the EIR/EIS, for discussion of potential effects on agricultural production and employment in the Delta. The EIR/EIS provides Mitigation Measure AG-1, the Agricultural Lands Stewardship Plan to reduce effects on agricultural resources in the Plan Area as much as possible.
1612	3	The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:  As stewards of some of California's best agricultural lands, Solano County notes that the BDCP is inconsistent with the County's General Plan due to the aforementioned conversion of agricultural lands.	Generally state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water are not subject to local land use regulations and inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment. However, this EIR/EIS, in assessing whether particular categories of environmental effects are adverse or beneficial (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact. Provisions of these plans are discussed in more detail in Chapter 13, Land Use, Section 13.2.3. Master Response 11 also addresses the applicability of City and County General Plans.
1612	4	The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:  Aside from the significant and deleterious conversion of agricultural land, the BDCP will degrade our water quality, disrupt agricultural infrastructure, and impose new regulatory constraints that will further erode agricultural acreage in Solano County.	The commenter's opinion regarding agricultural impacts of the BDCP is acknowledged. The alternatives analysis in Chapter 14, addresses all of the potential effects listed and recommends mitigation measures to reduce significant impacts. See Master Response 18 for more information regarding agricultural impact mitigation. Please also see Chapter 11 and Master Response 14 for information regarding water quality.
1612	5	The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:  The County [Solano] has not had an opportunity for any meaningful participation in the Plan's development or implementation.	The proposed project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations. The feedback was used to guide the development and subsequent revisions of the Proposed Project and its associated EIR/EIS to reflect concerns addressed from the various groups.  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.
1612	6	The following impact, which is described in greater detail in our attached comments, are	The EIR/EIS addresses 18 action alternatives and describes other alternatives that were considered but rejected from further consideration during the alternatives screening process. For more information

DEIRS Ltr#	Cmt#	Comment	Response
		<p>unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>The Plan neglects to address viable alternatives that will greatly reduce impacts to Solano County and our region and still achieve core project objectives.</p>	<p>regarding alternatives to the proposed project please see Master Response 4.</p>
1612	7	<p>The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>The BDCP is not consistent with recent State initiatives in addressing climate change, greenhouse gas emissions and sustainable planning practices—nor does it appear to account for climate change itself by failing to evaluate impacts of the BDCP in all regions that will be affected or benefit by the Plans implementation.</p>	<p>The anticipated hydrologic changes due to climate change (increased temperatures and more years of critical dryness, increased water temperatures, changes in precipitation and runoff patterns, sea level rise, and tidal variations) will constrain and challenge future water management practices across the state, with or without the proposed project. The state is addressing climate change through strategies and a decision-making framework as outlined in the California Climate Adaptation Strategy and Adaptation Planning Guide. However, no single project and indeed none of the project alternatives would be able to completely counteract all of the impacts of climate change.</p> <p>California WaterFix would help to address the resilience and adaptability of the Delta to climate change through water delivery facilities combined with a range of operational scenarios.</p> <p>For more information regarding climate change and GHGs please see Master Response 19.</p>
1612	8	<p>The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>Despite these profound and significant impacts [loss of agricultural lands, impacts to water quality] to Solano County, there is little guarantee the BDCP will even achieve its purpose. And if it does not, reversing the damage will be a near impossibility.</p>	<p>This comment is on the potential for the BDCP to achieve its stated biological goals and objectives and the consequence for lands converted for restoration if it does not. The BDCP is one alternative addressed in the EIR/EIS. While the conversion of agricultural land under Alternative 4 for proposed restoration would be sizable, effects on agricultural land as disclosed in Chapter 14, Agricultural Resources, under Alternative 4A (the California WaterFix) would be much less because of the reduction in habitat restoration under this alternative. Please also see Master Response 5 for more information regarding BDCP, including restoration goals.</p>
1612	9	<p>The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>With less fresh water and new large intakes being located upstream of the County [Solano], our agricultural areas and recreational areas will be diminished and could be completely choked off in years of water crisis such as this year.</p>	<p>The CALSIM II model assumptions include continued delivery to in-Delta water users and senior water rights holders in the Delta. As described in Tables C-13-14 through C-13-25 in Appendix 5A, Section C, Modeling Results, in the BDCP EIR/EIS, deliveries to the SWP North Bay Aqueduct would be similar or greater under Alternatives 1 through 5 and Alternative 9 as compared to the No Action Alternative (this set of comparison indicates the effects of the BDCP alternatives without the effects of climate change and sea level rise). Deliveries would be reduced under Alternatives 6 through 7 as compared to the No Action Alternative. The EIR/EIS did not consider mitigation measures directly related to water deliveries because the actual impacts were addressed under the environmental resources, including Groundwater, Agricultural Resources, Socioeconomics, Environmental Justice chapters. Water supply effects for Alternatives 4A, 2D and 5A would be similar to those of Alternatives 1-5 mentioned above.</p>
1612	10	<p>The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>The Plan and EIR both underestimate or ignore the full range of impacts that will affect Solano County. The vague commitment to address impacts coupled with weak mitigation measures provides little or no confidence that we will not be significantly negatively impacted if the plan is implemented.</p>	<p>The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. All of the potential effects of the action alternatives are addressed in Chapters 5-31 of this Final EIR/EIS. Please also refer to Master Response 22, related to mitigation measures and other actions to reduce environmental effects.</p> <p>A detailed MMRP is also being developed and will be released with the Final EIR/EIS.</p>
1612	11	<p>The following impact, which is described in greater detail in our attached comments, are unique to Solano County and appears to have been largely ignored as the Plan evolved:</p> <p>The DEIR/EIS does not serve its intended purpose as an informational document, because it does not provide sufficient analysis of the project, the project's environmental impacts,</p>	<p>Since 2006, the project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. All of the documents, studies, administrative drafts, and meeting materials have been posted online since 2010 in an unprecedented</p>

DEIRS Ltr#	Cmt#	Comment	Response
		appropriate mitigation measures, and a reasonable range of project alternatives	<p>commitment to public access and government transparency (see Master Response 41 [Transparency]).</p> <p>Fifteen alternatives and 3 new sub-alternatives were analyzed in the Draft EIR/S and the RDEIR/SDEIS, respectively. Four major alignments have been included in the environmental documentation: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Other proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the Draft EIR/S and Appendix 3A of the RDEIR/SDEIS. For further information on alternatives, a description of the process the Lead Agencies followed is provided in Master Response 4.</p> <p>Discussion of the main environmental attributes affecting individual covered species is provided in Appendix 2.A of the 2013 Public Draft. Effects of the proposed water conveyance and associated restoration activities on general resource areas are discussed in Ch. 4 of the RDEIR/SDEIS. Resource areas are addressed separately under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, public health, and others. Where impacts are determined to be significant, environmental commitments, described in the EIR/EIS, will be implemented to avoid and/or offset these effects, where possible.</p>
1612	12	At this critical juncture the Solano County Board of Supervisors and staff are unable to lend support to the BDCP in its current form.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1612	13	<p>Negative Impact to Agriculture</p> <p>Solano County has some of California's best agricultural land. As stated in the County's General Plan, "Agriculture has historically been both an important industry in Solano County and a central part of the County's identity." The County's General Plan designates virtually all land for the Delta region as agricultural. Moreover, the voters of the County over the years have voted to preserve agricultural areas outside of incorporated cities to assure orderly growth, including Measure T by an overwhelming 70% majority.</p> <p>The BDCP, by virtue of provisions for large restoration opportunity areas in Cache Slough and the Suisun Marsh, will likely result in the conversion of tens of thousands of acres of the County's Delta agricultural lands. From the County's perspective this will have very real economic, environmental and social impacts, not to mention it being a de-facto penalty for being good stewards of agricultural lands.</p> <p>Furthermore, beyond ecosystem restoration, there are many other aspects of the BDCP that may have negative consequences on the County's agriculture, including degradation of water quality used for farming operations, disruption of agricultural infrastructure, and new regulatory constraints, among others. These factors, and the associated cumulative impacts, could greatly increase the number of acres of lost productive farmland due to the BDCP well beyond those projected for ecosystem restoration. These are significant issues for the County and one that is basically "papered-over" in the BDCP. This is not acceptable to the County.</p>	Please refer to response to comment 1612 – 3 above related to the County General Plan. All of the impacts for action alternatives are fully addressed in Impacts AG -1, which addresses conversion of important farmland associated with alternative implementation and Impact AG-2 which addresses other potential effects on agricultural land including Delta salinity effects and effects on agricultural infrastructure. Please also see Chapter 11 and Master Response 14 for information regarding water quality.
1612	14	<p>Inconsistency with the County's General Plan - and the Co-Equal Goals</p> <p>Early in development of the BDCP, it would have been appropriate to truly take into account local general plans and policies and local interests in general as BDCP concepts were formulated. If this had occurred, it would have become readily apparent that our County is highly committed to preserving agricultural lands and has been for decades. But that did not</p>	Please refer to response to comment 1612 – 3 above related to the County General Plan. The EIR/EIS presents many mitigation measures, environmental commitments, and avoidance and minimization measure to reduce adverse/significant impacts of the action alternatives to the extent possible. Please refer to Master Response 31 regarding compliance with the Delta Reform Act and Master Response 24, regarding Delta as a Place.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>occur. And it is important to note that this clear inconsistency with the County's General Plan is not even acknowledged in a serious way in the BDCP documents nor is mitigation for related impacts clearly articulated.</p> <p>Moreover, the Plan is contradictory to the State Legislature's construct of the "co-equal goals" from the 2009 Delta Legislation. That legislation expressly states that the co-equal goals "shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." (Water Code [Section] 85054.)</p>	
1612	15	<p>Lack of Meaningful Participation in the Plan's Development or Implementation</p> <p>Despite the significant impacts to the County [Solano], it and the larger Delta community will play a diminished if not nonexistent role in governance of the Plan. The County's role is primarily confined to being one voice among dozens of others - including the state and federal water project contractors - on the "Stakeholder Council," which has no real authority. This is true despite the fact the Delta Counties will bear the brunt of impacts from the BDCP. When no meaningful seat at the table was made available during the BDCP process, any expectation that implementation will be less one sided defies credibility.</p>	<p>As explained in response to Comment 5, the proposed project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations. All of the documents, studies, administrative drafts, and meeting materials have been posted online since 2010 in an unprecedented commitment to provide public access and government transparency. To the degree that the current project is endorsed by some environmental organizations serves as confirmation that the proposed project protects species, habitats and the Delta ecosystem in a way that is compatible with their goals. The website includes correspondence from agencies and NGOs received prior to the start of the formal comment period. Additionally, comments received on the 2015 RDEIR/SDEIS were also made available on the website. Further, comments received during the comment period, and responses to those comments are to be included in this Final EIR/EIS.</p> <p>Please also refer to Master Response 5 for more information regarding the BDCP, including governance.</p>
1612	16	<p>The net effect of the Plan is to deal a serious if not fatal blow to agriculture and the economy in the Delta region so that other regions can sustain or build their economies. If the public process had not been controlled by regional interests and BDCP proponents, perhaps a more balanced plan could have evolved. Instead, we are left with a draft plan that is strongly opposed by nearly if not all Delta interests and seriously questioned by many other interests throughout the state. By many measures the public process for the BDCP has failed and further divided already disparate interests. A re-start and an honest commitment to an inclusive public process seem essential to achieve progress in meeting the state's current and future water needs.</p>	<p>The BDCP is one alternative addressed in the EIR/EIS. While the conversion of agricultural land under Alternative 4 for proposed restoration would be sizable, effects on agricultural land as disclosed in Chapter 14, Agricultural Resources, under Alternative 4A (the California WaterFix) would be much less because of the reduction in habitat restoration under this alternative.</p>
1612	17	<p>Lack of Meaningful Exploration of Alternatives</p> <p>The Plan's imbalance is particularly evident in its choice not to explore alternatives with less impact to the Delta communities. During the course of BDCP development, the County [Solano] has shown a willingness to work with BDCP proponents in good faith and cooperation, understanding the larger challenges facing our state in the critical area of water. But Plan alternatives that might reduce impacts to Solano County and the Delta region have been summarily dismissed or given only token assessment in the DEIR/EIS.</p> <p>Solutions like the "Portfolio Alternative" and "Garamendi Plan," which involve smaller conveyance and less ecosystem restoration, would greatly reduce impacts to our region while still achieving core project objectives. Perhaps even more preferable would be a fresh look at other alternatives that are less dependent on a trans-regional conveyance system that may have reached its maximum limits in the context of climate change and overall available water to be allocated. The current drought crisis highlights the need to invest in new cutting edge ways to meet future water needs. With available dollars precious, it seems prudent to invest in new sources of water that may be derived from new desalination technologies, water recycling infrastructure, groundwater remediation and similar measures</p>	<p>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 4 for discussion of the scope of the proposed project and alternatives (such as desalination or water storage) that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project. Also, refer to Master Response 6 and Appendix 1C, Demand Management Measures, for further information on demand management measures, including increasing agricultural water use efficiency and conservation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>where local supply enhancement is emphasized. In this context and with the future in mind, these alternatives seem far more deserving of limited investment dollars than focusing on a project that does not generate more water and is dependent on moving water great distances at great expense.</p>	
1612	18	<p>If freshwater flows into and through the Delta continue to diminish on average into the future, it is hard to understand the value of the investment in a BDCP that does not create more water for the system. The BDCP does allow for drawing water at different times than the current south intakes, but the ability to draw water in the new intakes may become constrained anyway due to lower average flows under climate change. Worse yet, the County [Solano] is concerned that the potential for more frequent drought crisis in the future will force decisions to draw water into the new intakes under emergency declarations despite low flows, which will ultimately make the water in our agricultural channels so saline as to be unusable for agricultural purposes. That would not improve the Delta ecosystem - the key tenant of the BDCP.</p>	<p>As mentioned in Chapter 8, Section 8.4.2.2, Comparisons, 2013 Public Draft EIR/EIS, the CEQA baseline “Existing Conditions” is represented by Existing Conditions modeling runs, not the historical water quality monitoring data as presented in Section 8.1.3, 2013 Public Draft EIR/EIS. The modeling and impact assessment specifically included and addressed the drought period of 1987-1991. Therefore, the assessment is considered adequate and represents the best available information to assess the effects of the project’s implementation under drought conditions.</p> <p>The state is addressing climate change through strategies and a decision-making framework as outlined in the California Climate Adaptation Strategy and Adaptation Planning Guide. However, no single project and indeed none of the project alternatives would be able to completely counteract all of the impacts of climate change.</p> <p>Multiple analyses were performed in the proposed project to test the robustness of the alternatives to a range of potential future conditions. Water supply, aquatic and terrestrial resources were all analyzed with projected future conditions. The proposed project will likely remain in place and functional far into the future when salinity intrusion may require less frequent use of the south Delta pumps. Far from being stranded assets, the tunnels will be part of the state’s strategy in adapting to climate change.</p> <p>More information on ways in which the project/California WaterFix proposes to improve resiliency and adaptability of the Delta to climate change can be found in Chapter 29, Climate Change, 2013 Public Draft EIR/EIS, and Appendix A RDEIR/SDEIS and Appendix 3E, Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies, 2013 Public Draft EIR/EIS, and RDEIR/SDEIS (in appendix A). Please also see Master Response 19.</p> <p>For more information regarding purpose and need of the proposed project please see Master Response 3.</p>
1612	19	<p>Solano County recognizes that new statewide solutions to water supply must be developed. Shared sacrifices must clearly be part of the solution. The County is ready to be part of those discussions. What is unacceptable is the current solution which clearly places the burden on the Delta region in an inequitable way. As this process evolves, the County urges further consideration of alternatives that reduce impacts on our region.</p>	<p>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 2015 RDEIR/SDEIS or the 2013 DEIR/DEIS.</p> <p>The preferred alternative is now Alternative 4A and includes far less impact to agricultural acreage in the delta. This alternative would substantially reduce the permanent effects on Delta agriculture by constructing the project largely underground versus via a surface canal. This project feature has substantially reduced surface impacts on agricultural resources in the Delta. Mitigation Measure AG-1 would further reduce impacts on agricultural resources.</p>
1612	20	<p>Inconsistency with Other State Initiatives</p> <p>Looking at the bigger picture, it is difficult to understand how the BDCP can be found consistent with recent State initiatives in addressing climate change and sustainable planning practices. As noted above, the BDCP will result both directly and indirectly in the loss of many thousands if not hundreds of thousands of acres of high-quality, sustainably farmed lands in the Delta with a favorable growing climate, good soils, and naturally available water. Producers in the Delta region are able to efficiently move product to nearby urban centers and grow a wide variety of agricultural product, thus minimizing greenhouse</p>	<p>Please see Final EIR/EIS Chapter 14, Agricultural Resources, Impact AG-1 and Impact AG-2 and their associated mitigation measures for complete analysis of how the proposed project will effect and mediate important farmland in the Delta.</p> <p>More than two-thirds of the residents of the state and more than two million acres of highly productive farmland receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the project proponents have no authority to designate what water is used for.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>gas emissions.</p> <p>In contrast, the BDCP will essentially take quality farming areas away in the Delta while empowering continuation and expansion of farming in areas with poorer soils, harsher climates, higher evapotranspiration rates, and higher greenhouse gas emissions both from powering a series of pumps to move water to distant farming areas and from shipping products to distant markets. It is curious the State is advocating for a project with such a glaring contrast from the greenhouse gas policies that have been embraced legislatively.</p>	<p>One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board.</p> <p>The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.</p> <p>Please note that construction-related GHG emissions will be offset to net zero through Mitigation Measure AQ-15, whereas operational emissions from SWP pumping will be offset through modifications to DWR's Renewable Energy Procurement Program (REPP). Refer to RDEIR/SDEIS Section 4, 4.3.18, Air Quality and Greenhouse Gases, for additional information. Please also see Master Response 19.</p>
1612	21	<p>And there are looming questions of the BDCP relative to climate change. Impacts from climate change and impacts from drought do not appear to be well thought out. Is the BDCP preferred project concept the best solution going forward in the face of climate change? It seems entirely possible that a climate change scenario evolves whereby Northern California's climate becomes similar to what has been experienced in Southern California over the past few centuries. This means longer and more severe drought periods and fewer higher than normal rainfall years. In essence, the State and Federal water projects were designed under the premise of California climate paradigms that may change dramatically and seem to be changing already. In fact, the past few decades have already shown a pattern of fewer "above the mean" rainfall years in many parts of Northern California and that may be a trend under climate change. Reduced snowpack and earlier snowpack melt-offs are already occurring. Why is this important to the County? With less freshwater coming through the system and new large intakes to be located upstream of the County under the BDCP, freshwater coming into our agricultural areas would be diminished and could be completely choked off in years of water crisis, such as this year. Assuming this occurs more frequently, it is inevitable that large agricultural areas in the Delta would be negatively affected, which represents a loss that is not proposed to be mitigated. Agricultural lands that would be lost as a result of the BDCP project should instead be preserved, because those lands cannot be recreated. Very little of the information in the BDCP document or DEIR/EIS gives the County any assurance that such a scenario can be avoided.</p>	<p>Please see Chapter 29, Climate Change, regarding the impact of the BDCP alternatives on climate change; the potential for future changes in climate to exacerbate project impacts; and the effects of the BDCP alternatives on the resiliency and adaptability of the BDCP Plan Area to the effects of climate change. Please also see Master Response 19.</p>
1612	22	<p>No Guarantee the Plan will even Achieve its Purpose</p> <p>As noted above, the effects of the BDCP are far reaching and damaging to the County and the Delta region. The offered basis for these changes is a theory that somehow many acres of ecosystem restoration can compensate for significantly modified natural system and reduced freshwater flows where many species are in peril. The reality is the BDCP documents themselves are hardly reassuring that targeted species will be restored. The concept of "Adaptive Management" still seems largely speculative and may not reveal failure to achieve objectives until long after too much has been invested to turn back the clock. In the process the County and other Delta areas will have to deal with the effects of BDCP infrastructure and habitat areas along with an extremely damaged agricultural economy. Furthermore counties like Solano will likely have to respond to the unintended</p>	<p>Please refer to response to comment 1612 -8, above.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		consequences of ecosystem restoration such as service and maintenance costs of such areas. This concern is exacerbated by the fact that mitigation to the County for such impacts is weak and unspecific in current BDCP documents.	
1612	23	For the reasons that are set forth in this letter, Solano County is unable to support the BDCP as proposed. We had hoped the formal draft would be more reflective and responsive to comments from Solano County during administrative draft phases but, if anything, our concerns have grown as more information has become available. We recognize that statewide solutions to water supply are essential and continue to offer our willingness to share in solutions that address the problem. We are unwilling, however, to support an effort that could devastate our agricultural industry and negatively alter the ecosystem in the Delta. As proposed the Plan appears to ignore the mandated "co-equal goals" as outlined by the 2009 Legislature amplifying the impacts from the BDCP impacts to our County--one that is central to this Plan--in a way that are so significant and so devastating that it leaves Solano County with no alternative at this time but to raise serious objections and call for significant changes responsive to the County's comments and comments from other Counties in the Delta region.	The Lead Agencies believe the proposed project meets the co-equal goals as stated by the commenter. The commenter is referred to the following Master Responses for information on compliance with existing legislation: 31 (Compliance with Delta Reform Act), 11 (Applicability of City and County General Plans), 13 (Public Trust Doctrine), and 29 (Compliance with Endangered Species Act). Additionally, agricultural resources, both impacts and mitigations, were evaluated in both the 2013 Draft EIR/EIS (Chapter 14) and in Sections 3, 4, 5, and Appendix A (Chapter 14) of the RDEIR/SDEIS. Since 2006, the BDCP and subsequently the California WaterFix Project have been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. Refer to Chapter 32 (Public Involvement, Consultation, and Coordination) in the 2013 Draft EIR/EIS and Master Response 40 (Public Outreach Adequacy) and 41 (Transparency). The preferred alternative is now Alternative 4A (i.e., the California WaterFix Project and no longer includes an HCP).
1612	24	ATT1: Comments of the County of Solano on The Draft Bay Delta Conservation Plan (BDCP), The Draft EIR/EIS for the BDCP Project (DEIR/EIS), and The Draft Implementing Agreement July 28, 2014	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.
1612	25	<p>[ATT1:] Both the DEIR/EIS and BDCP Documents Fail to Properly Distinguish Between Project, Impacts, and Mitigations</p> <p>The format and content of the Bay Delta Conservation Plan ("BDCP") and the Draft Environmental Impact Report/Environmental Impact Statement ("DEIR/EIS") are governed by multiple statutes and their implementing regulations. As an environmental impact assessment document, the DEIR/EIS must comply with CEQA for use by California state agencies and must also comply with NEPA for use by federal agencies. The BDCP, as a habitat conservation planning document, must comply with the NCCPA and, to the extent it is intended to be approved as a HCP, the federal ESA. In addition, as to any component of the BDCP project that provides public benefits, the BDCP must comply with requirements established in the DRA in order for that component to be eligible for state funding. (Water Code, [Section] 85320, subd. (b).) As to any component of the BDCP project that does not provide public benefits, that component would be ineligible for state funding due to the constitutional prohibition against gifts of public funds. The CEQA, NEPA, and federal ESA HCP processes are structured so that the various steps required by those processes occur sequentially; if the specified sequence is not followed, the process does not work as intended. Because the entire BDCP document is included as part of the DEIR/EIS, the various sequential processes established in each of these statutes must all be synchronized so that one process does not begin or end its course out of sync with the others.</p> <p>DWR, a state agency, will be the first agency to take a project approval action on the BDCP project. As a state agency, DWR's primary responsibility when conducting environmental review is to comply with CEQA. Under CEQA, state agencies are instructed to cooperate with federal agencies "to the fullest extent possible to reduce duplication" in the environmental review process, including preparing joint documents when possible. (CEQA Guidelines, [Section] 15226.) The phrase "to the fullest extent possible" means that CEQA does not cede document preparation standards to NEPA. Therefore, to the extent the document</p>	<p>The commenter is correct that, in preparing the Draft EIR/EIS and the Draft BDCP, the Lead Agencies were required to try to simultaneously satisfy CEQA, NEPA, the Delta Reform Act, the Natural Community Conservation Planning Act, and the Endangered Species Act. The Lead Agencies generally agree with the summary of law provided by the commenter, though not in all particulars. But, rather than offering a line by line critique of the commenter's summaries, the Lead Agencies offer the following thoughts and caveats:</p> <p>First of all, to the extent the commenter intends to suggest that the Lead Agencies have failed in their efforts to separately comply with all of these different state and federal laws, and instead have created a kind of legal "Mulligan Stew," the Lead Agencies disagree. They believe that they have properly satisfied all of the enumerated laws, despite the obvious challenges in doing so.</p> <p>Secondly, DWR as CEQA Lead Agency acknowledges that, in formatting its EIR in order to facilitate simultaneous compliance with NEPA by the federal Lead Agencies, the EIR portion of the joint environmental document departs from the typical format commonly used for EIRs, in which there is a clear "proposed project" to which the greatest amount of detailed analysis is devoted, accompanied by proposed "alternatives to the project" examined at a lesser level of detail. Instead, the Draft EIR/EIS identifies the CEQA Preferred Alternative or Proposed Project (Alternative 4) but devotes essentially the same level of analysis to the other alternatives. From a NEPA standpoint, this additional level of analysis assures that alternatives are given "substantial treatment," as required by 40 C.F.R. section 1502.14[e]. From a CEQA standpoint, this additional detail goes beyond the call of duty under CEQA, but is in no way contrary to CEQA or in violation of CEQA. Indeed, to the extent that the normal approach used under CEQA, which includes more analysis of the "proposed project" than of alternatives, often seems to put the project at an advantage over the alternatives, the approach taken here by the Lead Agencies has the tendency to level the playing field between the proposed project and the alternatives. This approach is consistent with the principle that Lead Agencies under CEQA should maintain their options to choose an alternative over "the proposed project" at the very end of the CEQA process.</p> <p>Third and finally, the Lead Agencies have been very careful to distinguish between CEQA and NEPA</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>formatting standards under CEQA differ from those established by NEPA, DWR is required to prepare an EIR that describes and evaluates its proposed project in the manner required by CEQA.</p> <p>The CEQA Guidelines allow flexibility in document formatting, but recommend that each required element be covered in distinct sections of the EIR. (CEQA Guidelines, [Section] 15120, subd. (a).) The Guidelines identify "Project Description" and "Alternatives to the Proposed Project" as separate elements of an EIR. (CEQA Guidelines, [Sections] 15123 &amp; 15126.6.) Although the CEQ's NEPA regulations suggest that a proposed action should be described in the same portion of an EIS as the project alternatives, those regulations allow for the proposed action to be described separately from the alternative when the federal agency preparing the EIS determines that there is a compelling reason to do so. (40 CFR [Section] 1502.10.) In this case, the formatting standards established in the CEQA Guidelines and to which DWR is subject provide a sufficiently compelling reason.</p> <p>More generally, an EIR must cover each of the topics or elements specified in Article 9 of the CEQA Guidelines, either separated into distinct sections of the EIR or else clearly identified regarding where in the EIR each required element is discussed. (CEQA Guidelines, [Sections] 15120, subd. (a), &amp; 15160; see <i>Citizens for a Sustainable Treasure Island v. City and County of San Francisco</i> (7/7/2014) xxx Cal.App.4th xxx.) These required elements of any EIR include a summary of the project and its consequences, a project description, a description of the project's environmental setting, consideration and discussion of the project's significant environmental impacts, discussion of the project's significant effects which cannot be avoided, consideration and discussion of proposed mitigation measures, consideration and discussion of project alternatives including the No Project Alternative, and a discussion of cumulative impacts. Each of these required elements has unique meaning and significance for the CEQA processes, and the critical distinctions between the various elements cannot be ignored. For example, if a portion of the project description is identified and presented in the EIR as a mitigation measure, then the EIR has likely failed to evaluate the full environmental impacts of the project as proposed. NEPA establishes similar requirements.</p> <p>The HCP process draws a sharp and clear distinction between the underlying or "otherwise lawful" activity that will be the cause of incidental take, on the one hand, and the measures proposed by the incidental take permit applicant to minimize or mitigate the impacts of that incidental take, on the other. (16 USC [Section] 1539, subd. (a)(1)(B) &amp; (a)(2)(A)(ii).) For example, the opening paragraph of the Department of Interior's Habitat Conservation Planning Handbook ("HCP Handbook") states as follows:</p> <p>The purpose of the habitat conservation planning process and subsequent issuance of incidental take permits is to authorize the incidental take of threatened or endangered species, not to authorize the underlying activities that result in take. This process ensures that the effects of the authorized incidental take will be adequately minimized and mitigated to the maximum extent practicable. (HCP Handbook, p. 1-1.)</p> <p>The HCP Handbook describes the required process for preparing an HCP and identifies the following specific steps, as well as others, that should be performed in sequence in order to be performed correctly:</p> <p>The first step is identifying the impacts likely to result from the proposed incidental take. This first step includes multiple subtasks, including (a) delineating the plan area, (b) collecting biological data, © identifying the underlying "otherwise lawful" activities that are</p>	<p>mitigation measures, on the one hand, and conservation measures and avoidance and minimization measures formulated under ESA, on the other. The Lead Agencies have also identified what they call "Environmental Commitments," which serve the purposes of all relevant statutory schemes insofar as they tend to reduce the severity of all kinds of environmental effects, including effects on listed species and their habitats.</p> <p>Alternative 4 remains a viable alternative; however, with the publication of the Partially Recirculated Draft EIR/Supplement to the Draft EIS (RDEIR/SDEIS), they have identified a modified version of Alternative 4 (Alternative 4A/California WaterFix) as the new CEQA and NEPA Preferred Alternative.</p> <p>With regards to the compliance with the Delta Reform Act, please see Master Response 31.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>likely to result in incidental take, and (d) quantifying anticipated take levels from these activities. (HCP Handbook, pp. 3-10 &amp; 3-12 -- 3-15.)</p> <p>The second step is identifying measures the applicant will undertake to monitor, minimize, and mitigate the impacts of anticipated incidental take, as well as the funding that will be made available to undertake such measures. (Handbook, p. 3-10.) Determining anticipated take levels, developing the mitigation program, and establishing authorized take levels is necessarily an iterative subroutine, but it is a subroutine that is conducted after the underlying "otherwise lawful" activities have been fully identified as the first step of the process. (HCP Handbook, p. 3-15.)</p> <p>Incidental take caused by mitigation activities rather than by the underlying activity, or second-order incidental take, can be permissible where the mitigation measures are intended to minimize more serious forms of take. (HCP Handbook, p. 7-2.) CEQA recognizes an equivalent concept of environmental impacts cause by mitigation measures rather than by the project itself. An EIR must consider and discuss such second-order impacts, but not to the same degree as impacts caused by the proposed project. (CEQA Guidelines, [Section] 15126.4, subd. (a)(1)(D).)</p> <p>The HCP document or other evidence in the record must demonstrate that the measures identified in the HCP will minimize and mitigate the impacts of incidental take "to the maximum extent practicable." (16 USC [Section] 1539, subd. (a)(2)(B)(ii).)</p> <p>Just as the CEQA and NEPA processes require that the proposed project, its environmental impacts, and proposed mitigation measures be separately identified and evaluated in an EIR or EIS, the HCP process requires that the proposed underlying "otherwise lawful" activity, the incidental take caused by that activity, and the measures proposed to minimize or mitigate that incidental take be separately identified and evaluated in an HCP. If an agency uses the "mulligan stew" approach when drafting its EIR, EIS, or HCP, the agency and its document "jumbles several important concepts, each having a different meaning and each entitled to separate consideration." (Planning and Conservation League v. Dept. of Water Resources (2000) 83 Cal.App.4th 892, 918.)</p>	
1612	26	<p>[ATT1:] The BDCP is not Adequate as a HCP/NCCP</p> <p>A fundamental problem with the BDCP document, as currently drafted, is the failure to separately identify and quantify the level of anticipated incidental take based on the type of underlying activity that is the cause of the take. An incidental take permit issued pursuant to either the federal ESA or the NCCPA is prospective, allowing the future occurrence of take that will be caused by the underlying activities. Under the federal ESA, an incidental take permit must be supported by an approved HCP and Section 10(a)(2)(B) findings, while under the NCCPA a permit must be supported by an approved NCCP. Take that has been already been caused by past activities may be the subject of an enforcement action or voluntary remediation, but it cannot be authorized after the fact through issuance of a prospective incidental take permit.</p> <p>The Delta Reform Act's definition of "restoration" includes restoration efforts for ecosystem changes that have already occurred or will occur in future due to sea level rise and climate change, but not restoration efforts to offset or mitigate future construction and operational activities of the SWP/CVP. (Water Code, [Section] 85066.) As a state statute, the DRA cannot amend the federal ESA; it explicitly does not amend the NCCPA. (See Water Code, [Section]</p>	<p>The preferred alternative is pursuing incidental take authorization for ESA- and CESA-listed species through a Section 7 and 2081b permit, respectively. The BA describes the actions for which take is requested and does not include the effects of climate change, sea level rise, or previously restored areas. The preferred alternative is not an HCP/NCCP and does not propose largescale habitat restoration. To the extent other restoration activities are reasonably foreseeable, they have been assumed as part of the cumulative analysis.</p> <p>Please see Master Response 5 for more information regarding BDCP, including environmental analysis of some conservation measures.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>85032, subd. (a).) Therefore, the DRA cannot and does not make past activities, future sea level rise, or future climate change an underlying "otherwise lawful" activity for purposes of either the federal ESA or the NCCPA. While species currently listed as threatened or endangered have already been harmed due to past activities, and are likely to be harmed in the future due to sea level rise and climate changes, take caused by these sources of harm cannot be authorized through the HCP and NCCP processes.</p> <p>Restoration for ecosystem changes that have already occurred can be either voluntary or involuntary. Voluntary creation or enhancement of habitat involving physical changes to the environment is not exempt from CEQA. (California Farm Bureau Federation v. County of Tehama (2006) 143 Cal.App.4th 173; cf. CEQA Guidelines, [Section] 15333 [5 ac. exemption].) On the other hand, involuntary remediation of degraded habitat, pursuant to an enforcement order, is exempt from CEQA. (CEQA, [Section] 21174; CEQA Guidelines, [Section] 15321; see Friends of the East Fork v. Thom (W.D.Wash. 2010) 688 F.Supp.2d 1245 [application of NEPA in conjunction with ESA enforcement order].) Nevertheless, while remediation to be done pursuant to an enforcement order is exempt from CEQA as a project, it is a reasonably foreseeable future activity that must be addressed in the cumulative impacts analysis during environmental review of related projects.</p>	
1612	27	<p>[ATT1:] The BDCP identifies 22 broad categories of covered activities but fails to differentiate the various purposes behind these activities. Construction and operation of a new water conveyance facility and ongoing operation of the existing SWP/CVP system will cause a certain amount of incidental take; voluntary restoration activities to remediate ecosystem changes caused by past operation of the SWP/CVP system may cause an additional amount of incidental take; voluntary restoration activities to remediate ecosystem changes caused by past acts of non-SWP/CVP actors may cause even more incidental take; finally, "restoration" activities to compensate for future sea level rise and climate may cause even more take. Lumping prospective SWP/CVP operations together with remediation of damage caused by non-SWP/CVP actors is a political choice, not a legal requirement. The amount of take caused by each type of underlying activity needs to be estimated and described in the BDCP, so that the public and the decision makers have full information regarding the need for full or partial implementation of this cafeteria style HCP and issuance of associated incidental take permits. Apportionment can be difficult, but juries are routinely required to apportion causation based on far less evidence than is available here. While apportionment with exact precision is rarely possible, a reasonable apportionment will be upheld if it is supported by substantial evidence.</p>	<p>Please see response to comment 1612-26. The analysis presented in the BA provides the information necessary for FWS and NMFS to assess the take associated with the proposed action. This incidental take assessment will be included in the BiOp.</p>
1612	28	<p>[ATT1:] A fundamental problem with the BDCP document is its conflation of the underlying otherwise lawful activities, which cannot be authorized through an incidental take permit, with the measures being proposed to minimize or mitigate the effects of take cause by those underlying activities, which will be conditions of an incidental take permit. This is an example of the "mulligan stew" approach to document drafting that the Court of Appeal soundly criticized in the Planning and Conservation League v. Department of Water Resources case.</p> <p>To the extent the concepts of underlying activity and mitigation measure are not fully merged, the BDCP document creates artificial distinctions. For example, with respect to CM1, the BDCP document classifies construction of new facilities as a covered activity while operation of new and existing SWP facilities is classified as mitigation. The BDCP document fails to explain how an environmentally sensitive operations plan carried out during years</p>	<p>Please see response to comment 1612-26 and Master Response 5. The effects of each component of the proposed action are deconstructed and described in the BA.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>11-50 will mitigate for incidental take that would occurs because of environmentally insensitive facility construction practices during years 1-10. In addition, such an artificial distinction between the underlying activity and proposed mitigation either hides or fails to identify incidental take caused by the underlying activity, which consists of both facility construction and system operation. The Implementing Agreement ("IA") further clouds the distinction drawn in the BDCP document between construction and operation of the conveyance facility by stating, in Section 9.2 of the IA on page 21, that the Covered Activities described in Chapter 4 of the BCDP document "consist primarily of activities related to the development and operation of water conveyance infrastructure." As a result, it is not clear whether operation of the proposed conveyance facility is part of the underlying activity that will cause incidental take, part of the mitigation proposed to minimize incidental take caused by other activities, or both.</p>	
1612	29	<p>[ATT1:] The artificial distinction made in the BDCP document between the underlying activity and the mitigation associated with CM1 is not only an information disclosure problem, it is also a permitting problem. To the extent the operation of the existing or augmented SWP/CVP system might cause incidental take, such take would not be covered by the HCP/NCCP and associated incidental take permits because system operations is not identified as a covered activity in the BDCP document. An HCP should account for second-order take caused by mitigation (see HCP Handbook, p. 7-2), but the BDCP document fails to provide that required level of detail.</p> <p>Designing an underlying activity to avoid incidental take or to minimize the impacts of unavoidable take is good, but the applicant for the incidental take permit must still demonstrate that such design avoids or minimizes take to the maximum extent practicable. (16 USC [Section] 1539, subd. (a)(2)(B)(ii).) The BDCP document either fails to make such a required demonstration, or does so in such an oblique manner that it is not readily apparent. When an HCP fails to demonstrate, based on substantial evidence, that impacts to endangered and threatened species have been minimized or mitigated to the maximum extent practicable, the associate environmental document will be defective. The alternatives considered in the EIR or EIS need to bracket the mitigation proposed in the HCP in order to demonstrate, for purposes of CEQA or NEPA, that the HCP provides the maximum practicable extent of impact minimization. (National Wildlife Federation v. Babbitt (E.D.Ca. 2000) 128 F.Supp. 1274 ["Natomas I"].)</p> <p>The BDCP document does not provide clear and rational distinctions between the identified underlying activities and the proposed impact minimization and mitigation measures. As a result, it is not clear how much incidental take is anticipated to be caused by the various types of underlying activities, what types of incidental take will be either authorized or outside the scope of the incidental take permit to be issued, and whether the incidental take anticipated to be caused by the full range of underlying activities will be minimized or mitigated to the maximum extent practicable. Adding insult to injury, the analysis provided in the DEIR/EIS suffers substantially as a result of these errors in the BDCP document.</p>	<p>The 2013 public draft BDCP does cover the operations of the State Water Project and Central Valley Project in the Delta after the new water conveyance facility is operational. The incidental take permits requested from the state and federal wildlife agencies, if issued, would provide take authorization for project operations for an estimated 39 years (= 50 year permit term minus the 11 years of water facility construction). The effects analysis in BDCP Chapter 5 evaluates both the direct and indirect effects of all conservation measures on the covered species. The analysis makes no distinction between the portion of the conservation measure that may be required for mitigation and the portion of the measure needed to contribute to species recovery. (This distinction is only made in Chapter 8, Cost and Funding, for the purposes of determining the mitigation share of BDCP costs.) Alternative 4 demonstrates that the conservation strategy provides the maximum extent practicable mitigation through the analysis in Chapter 9, Alternatives to Take. In this analysis, additional conservation in the form of greater outflow or more tidal wetland restoration are both shown to be impracticable for reasons described in that chapter. The amount and types of incidental take proposed for authorization is described in BDCP Chapter 5 for each of the covered species.</p> <p>Operations for the proposed project would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as described in the 2008 and 2009 BiOps (RDEIR/SDEIS Executive Summary ES.2.2).</p> <p>For the Proposed Action, the USFWS and NMFS will conduct an internal ESA section 7 consultation prior to issuance of a 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 United States Bureau of Reclamation (Reclamation) to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project.</p>
1612	30	<p>[ATT1:] Funding for Mitigations/Conservation Measures in the BDCP is Uncertain</p> <p>The introduction to Chapter 8 of the BDCP acknowledges that "[t]he federal Endangered Species Act (ESA) requires that habitat conservation plans (HCPs) specify 'the applicant will ensure that adequate funding for the plan will be provided' for conservation actions that minimize and mitigate impacts on covered species (United States Code [USC] 1539(a)(2)(A)).</p>	<p>Please see Master Response 5 for more information regarding the BDCP, including funding strategy.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The Natural Community Conservation Planning Act (NCCPA) requires that natural community conservation plans (NCCPs) contain 'provisions that ensure adequate funding to carry out the conservation actions identified in the Plan' (California Fish and Game Code [Fish &amp; Game Code] 2820(a)(10))." However, the BDCP fails to provide a credible plan for funding Conservation Measures 2 through 22, which are necessary to mitigate the impacts of Conservation Measure 1 (water conveyance facilities). For example, according to a February 2014 analysis by the State of California's Legislative Analyst's (LAO) office, "[t]he BDCP expects nearly 90 percent of the costs of ecosystem restoration and program administration to be shared by the state and federal governments. Most state funding is anticipated to be provided by future water bonds, including a bond currently scheduled for the November 2014 ballot. Federal funding is expected to be provided almost exclusively by congressional appropriations with a small amount expected from an existing surcharge on CVP water users." Additionally, the LAO report states, "BDCP relies on two future bond measures to fund the state share of ecosystem restoration, but it is unclear if and when voters will approve them. If bond funds are not available in the near future and no additional funding sources are identified, some ecosystem restoration may not be funded, including the restoration actions needed before the tunnels begin operation. The BDCP states that the SWP and CVP will not pay additional costs or forgo water in the event of a funding shortfall."</p> <p>It would be irresponsible for the State to move forward with the water conveyance portion of the BDCP project without identifying secure funding sources for the CMs/mitigations needed to address the project's impacts. Reliance on California voters to approve bonds and on the Legislature and U.S. Congress to make appropriations to provide necessary funding in the future is not a secure funding plan. This is a fatal flaw in the BDCP as currently written, which must be addressed prior to moving the project forward. The significance of this flaw is compounded by the fact that the BDCP likely under-estimates the costs of implementation, particularly given the reliance on the BDCP's proposed "adaptive management" approach which, in essence, acknowledges that the project proponents do not know with any degree of certainty whether the proposed CMs/mitigations will be effective and/or the cost of other measures that may be necessary to mitigate adequately the impacts of the proposed project. The BDCP and the DEIR/EIS should acknowledge this situation and incorporate provisions to ensure the availability of funding to mitigate fully the proposed project's impacts, including potential unforeseen impacts and/or unforeseen actions needed to effectively mitigate the impacts that have been identified so far.</p>	
1612	31	<p>[ATT1:] The Contents of the DEIR/EIS are not Clearly Identified</p> <p>The BDCP DEIR/EIS is available through the baydeltaconservationplan.com website ("BDCP website"), but the "Public Review Draft EIR/EIS" page on that website is the electronic equivalent of the cardboard box disparagingly referenced by the Court of Appeal in <i>Camp v. Board of Supervisors</i> (1981) 123 Cal.App.3d 334, 349, fn.8. In the <i>Camp</i> case, the court described the county general plan it was asked to review as "a sheaf of uncoordinated documents stuffed into an unlabeled carton" and concluded that "[t]he physical composition of this 'general plan' would appear to make resort to it for planning information an awkward exercise and would also seem to generate doubt concerning the integrity of the plan, when so many of its elements are merely deposited loose in a cardboard box."</p> <p>On the "Public Review Draft EIR/EIS" page of the baydeltaconservationplan.com website,</p>	<p>See Master Responses 38 (Length of Environmental Document) and 39 (Public Review Period was Too Short).</p> <p>The commenter expresses frustration with the process of downloading DEIR/EIS files from the BDCP website. The Lead Agencies understand that, given the size of the DEIR/EIS, the process of downloading files was somewhat laborious, but a certain amount of difficulty was inevitable under the circumstances. Even so, the Lead Agencies do not agree with the commenter's analogy, by which the downloading process is equated to the chaotic General Plan at issue in the <i>Camp v. Board of Supervisors</i> case. Here, the overall organization of the DEIR/EIS is quite clear from the face of the web page containing the various pdf files, and the pdf files themselves are clearly labeled. The table of contents and executive summary were clearly identified. The overall organization of the DEIR/EIS is consistent with typical EIRs and EISs, and tracks the subjects described in sections 15122 through 15130 of the State CEQA Guidelines. If the commenter found the web page too cumbersome, the commenter could have requested a CD or a hard copy from the Lead Agencies. Notably, nothing in CEQA or NEPA required the Lead Agencies to post the DEIR/EIS on-line. Thus, there are no established rules for how to do so. The Lead Agencies' technical specialists did their best to</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the DEIR/EIS is presented as a collection of 197 PDF files, over half of which are labeled as appendices. The CEQA Guidelines direct that the inclusion of highly technical and specialized analysis and data within the body of the EIR should be avoided, and that such information should be made available for public examination in appendices separate from the EIR document. (CEQA Guidelines, [Section] 15147; see also 40 C.F.R. [Section] 1502.18.) Based on the CEQA Guidelines and NEPA regulations, one would normally assume that appendices are supplemental to, rather than part of, the DEIR/EIS document. If someone wanted to read only the DEIR/EIS document and not the supporting appendices, especially when presented with a list of 197 PDF files, that person might download and review only the 75 files not labeled as being appendices. Such an assumption would be entirely reasonable, but it would be incorrect.</p> <p>The DEIR/EIS discloses in a footnote that it is in fact a much larger document than presented on the "Public Review Draft EIR/EIS" webpage, as follows: "The full Draft EIR/EIS should be understood to include not only the EIR/EIS itself and its appendices but also the proposed BDCP documentation including all appendices." (DEIR/EIS, p. 1-2, fn. 3; see also p. ES-3, fn. 3.) In other words, the DEIR/EIS includes not only all 197 files listed on the "Public Review Draft EIR/EIS" webpage, but also all 47 files listed on the "Public Review Draft BDCP" webpage as well. This critical information regarding what the lead agencies themselves consider to be the contents of their DEIR/EIS document appears nowhere on the BDCP website.</p> <p>The 244 electronic files listed and available for download on the "Public Review Draft EIR/EIS" and "Public Review Draft BDCP" webpages consist of approximately 40,000 pages, in aggregate. The Draft Implementing Agreement ("IA") is a separate file, added to the "Public Review Draft BDCP" webpage on May 30, 2014. We have not found any statements in footnotes or elsewhere indicating that the lead agencies intend for the IA to be understood as part of the DEIR/EIS. In addition, the IA was not available at the time the Notices of Completion and Availability were provided (see CEQA Guidelines, [Sections] 15085 &amp; 15087) and there is no indication that specific details of the IA were evaluated as part of the proposed project or the proposed action in the DEIR/EIS.</p>	<p>make the document reasonably available to interested parties. As noted, its sheer size made it impossible to achieve a level of convenience satisfactory to the commenter.</p> <p>There is nothing wrong in defining the full DEIR/EIS as including the technical appendices mentioned by the commenter. The Lead Agencies have indeed used appendices as places to include highly technical information or background information that, while important, was less essential than the information found in the DEIR/EIS text. For those readers who really desire to understand the underlying technical and scientific bases for the conclusions found in the DEIR/EIS text, familiarity with the appendices is beneficial. If the Lead Agencies had attempted to shift more of the information in the appendices into the text, the text chapters would have become even longer and difficult for those readers who were mainly interested in technical and scientific conclusions rather than the often very complicated technical and scientific evidence and analysis supporting those conclusions.</p> <p>With respect to the Implementing Agreement (IA), the Lead Agencies do not consider it to be part of the EIR/EIS. Rather, it is a document prepared in order to achieve compliance with the Natural Community Conservation Planning Act (NCCPA), a state law relevant to all of the action alternatives in the DEIR/EIS. The draft IA was circulated for a 60-day public review and comment period, effective May 30, 2014, through July 29, 2014. This period overlapped with the extended review period for the DEIR/EIS, but was not undertaken pursuant to either CEQA or NEPA. For this reason, the Lead Agencies had no obligation to include references to the draft IA in the Notice of Completion and Notice of Availability for the DEIR/EIS issued in late 2013 at the beginning of the public review period for the DEIR/EIS. Indeed, the draft IA, in the form published in May 2014, did not exist at the commencement of the public review period. When the IA was ready for release, such release was widely publicized by the Lead Agencies.</p> <p>Because an implementation agreement is a requirement of the NCCPA (Cal. Fish &amp; G. Code, § 2820(b)), no IA will be necessary if the Lead Agencies ultimately choose to approve Alternatives 2D, 4A, or 5A, as described in the Partially Recirculated Draft EIR/Supplement to Draft EIS.</p>
1612	32	<p>[ATT:1.] The DEIR/EIS is not Useful as an Informational Document due to its Size</p> <p>The enormous size of the Bay Delta Conservation Plan DEIR/EIR represents a gross violation of both the letter and the spirit of California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"). As a consequence, local agencies such as Solano County, which do not have unlimited in-house staffing resources, and the public have been deprived of any meaningful opportunity to review and comment on that document in its entirety. Solano County requests that the DEIR/EIS be edited and rewritten in compliance with CEQA and NEPA, and then recirculated for public review and comment, prior to any action being taken on any component of the BDCP project. (See CEQA Guidelines, [Section] 15088.5, subd. (a).)</p> <p>In interpreting CEQA, the CEQA Guidelines are to be accorded "great weight" except where they are clearly unauthorized or erroneous. (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal. 4th 412, 428, fn. 5.) The CEQA Guidelines recommend that "the text of draft EIRs should normally be less than 150 pages and for proposals of unusual scope or complexity should normally be less than 300 pages." (CEQA Guidelines, [Section] 15141.) There is no indication that these page limits recommended in the CEQA Guidelines are clearly erroneous or unauthorized under CEQA. Similar regulations</p>	<p>The proposed project is a joint EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS and RDEIR/SDEIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions.</p> <p>Please see Master Response 38 for information on the length and complexity of the document.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>issued by the Council on Environmental Quality ("CEQ") to implement the procedural provisions of NEPA state that the text of environmental impact statements shall "normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages." (40 CFR [Section] 1502.7.)</p> <p>As stated above, the DEIR/EIS document is approximately 40,000 pages, according to the self-description of that document provided in footnote 3 of its Executive Summary and in footnote 3 of Chapter 1. This exceeds the maximum pages limits called for in both the CEQA Guidelines and the NEPA regulations by an astounding 13,300%. Even if the statement in footnote 3 regarding the contents of the document incorrectly represents the intent of the lead agencies, in which case reviewers would have been materially misled, Chapters 1 through 31 of the Draft EIR/EIS as presented on the "Public Review Draft EIR/EIS" page of the BDCP website, excluding appendices, are more than 12,000 pages in aggregate. Even such a lesser-sized document exceeds the CEQA and NEPA maximum page limits by 4000%. Such a gross exceedance of the recommended page limits is not a mere technical blunder, but amounts to a prejudicial abuse of discretion that causes substantial and irreparable injury to both commenting agencies, such as Solano County, and the public in general.</p>	
1612	33	<p>[ATT1:] It is by now axiomatic that the EIR is the "heart of CEQA." (CEQA Guidelines, [Section] 15003, subd. (a); see Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 392.) The EIR must be organized and written in a manner that will be meaningful and useful to decision makers and the public. (Pub. Res. Code, [Section] 21003, subd. (b); CEQA Guidelines, [Section] 15002, subd. (a)(1) &amp; (4).) "The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project." (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 443.) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564.) "To this end, public participation is an 'essential part of the CEQA process.'" (Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal.4th 1112, 1123; see also CEQA Guidelines, [Section] 15201.)</p> <p>This gross exceedance of the recommended maximum page limits has significant adverse consequences to the public participation process. The CEQA Guidelines require the lead agency to provide adequate time for other public agencies and members of the public to review and comment on a draft EIR. (CEQA Guidelines, [Section] 15203; see also 40 C.F.R. [Section] 1503.1, subd. (a)(4).) The minimum standards of adequacy are established within CEQA itself, which requires a minimum 45-day public review period for a draft EIR submitted to the State Clearinghouse. (Pub. Res. Code, [Section] 21091, subd. (a).) The CEQA Guidelines reiterate the 45-day minimum requirement and recommend an upper limit on the public review period of 60 days, "except under unusual circumstances." (CEQA Guidelines, [Section] 15105, subd. (a).) This recommended 60-day upper limit should be read in light section 15141 of the Guidelines, which calls for EIRs to be less than 150 pages except "for proposals of unusual scope and complexity," in which case EIRs can be as large as 300 pages.</p> <p>Together, CEQA and the CEQA Guidelines establish a presumption that a review period of at least 45 days provides adequate time for public agencies and members of the public to review and comment on a draft EIR that does not exceed 150 pages in length. Extrapolating</p>	<p>The proposed project is a joint EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS and RDEIR/SDEIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions.</p> <p>Please see Master Response 38 for information on the document length and complexity and Master Response 39 for information regarding the public review period duration.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		based on this standard, the minimally adequate review period for a 40,000 page draft EIR would be 12,000 days, or almost 33 years. The review period for the BDCP DEIR/EIS was arbitrarily limited to 228 days, a period of time that CEQA and the CEQA Guidelines imply would be adequate for a document that did not exceed 750 pages in length.	
1612	34	[ATT1:] During the recent statewide conversation regarding the need to reform and improve CEQA, one area identified as ripe for reform was the abusive tactic--engaged in by a small number of often-habitual project opponents--of dumping massive quantities of marginally-relevant documents on the lead agency in a way that deprives the lead agency of any meaningful opportunity to review and respond to those documents. A 40,000 page EIR represents this same abusive tactic played in reverse: a monumental document dump by the lead agency on the public and interested agencies, effectively depriving them of any meaningful opportunity to comment on the contents of that document. CEQA is not intended to be a game of gotcha played between opposing sides, where "might makes right" or the biggest stack of documents determines the winner. In fact, CEQA is not a game at all; it is a structured process for participatory democracy, whereby the people of California and their elected state and local officials can work together to intelligently guide growth and development, while protecting the state's natural resources and the environment to the greatest extent practicable. (See CEQA, [Sections] 21000, 21001, 21002.1, 21003, 21003.1, & 21005.)	See Master Response 38, Length of Environmental Document. Also see Master Response 40, which discusses public outreach efforts.
1612	35	[ATT1:] In order for the CEQA process to work as intended, an EIR must be readable and understandable on a human scale. Individuals should be able to participate meaningfully in the CEQA process as individual and not just as members of well-staffed organizations or special interest groups. For those citizens who want to participate in the CEQA process as individuals, the price each must pay in order to participate in an informed and meaningful manner is the investment of sufficient time to read the entire EIR or a substantial portion of it. Of course, a typical California resident could not read an entire draft EIR in a single day or even a weekend, due to commitments imposed on him or her by work and/or family. That is why both CEQA and the CEQA Guidelines require a minimum 45-day public review period and recommend that a draft EIR not exceed 150 to 300 pages in length. More broadly, the CEQA Guidelines require a lead agency to "provide adequate time for other public agencies and members of the public to review and comment on a draft EIR." (CEQA Guidelines, [Section] 15203.) In order to read a 40,000-page EIR within a 228-day public review period, however, one would need to average over 175 pages per day, each and every day, for over seven months. In terms of the time commitment required to participate meaningfully in the CEQA process, the lead agencies have set the price far too high for ordinary citizens to afford; public agencies with limited staffing resources, such as Solano County, fare only slightly better.	<p>The proposed project is a joint EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS and RDEIR/SDEIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions.</p> <p>Please see Master Response 38 for information on document length and complexity and Master Response 39 for information regarding the public review period duration.</p>
1612	36	[ATT1:] CEQA allows a lead agency to provide its EIR to the public in electronic format, but does not require it. (Pub. Res. Code, [Section] 21089, subd. (c); CEQA Guidelines, [Section] 15201; see also CEQA Guidelines, [Section] 15206, subd. (a)(2) [lead agency shall submit both printed and electronic copy of draft EIR to State Clearinghouse].) Although the Guidelines may be amended in the future as technology and public access to it evolves, the current version of the Guidelines makes electronic documents supplemental to, rather than a substitute for, printed hardcopy documents. By providing this DEIR/EIS to the public only or primarily in electronic form rather than as a physical document, the lead agencies have masked the fact that a 40,000-page document is functionally inaccessible in paper format: a physical document of this size could not be carried in one hand, like a normal EIR, but would	<p>In accordance with state and federal guidelines, the draft documents electronic copies were made available at libraries throughout the state, as well as in several other locations.</p> <p>The proposed project is a joint EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS and RDEIR/SDEIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>instead require both a handtruck and a strong back. However, the tradeoff is that this DEIR/EIS is accessible only to those with a computer or other personal electronic device, and only where those devices are present. For someone without a laptop, the document is accessible only at a fixed location. In addition, while electronic documents can be formatted to provide accessibility enhancements not available on paper documents, such as hyperlinks and embedded multimedia, this exclusively-electronic DEIR/EIS fails to take advantage of the electronic medium.</p>	<p>agency permit approvals and other discretionary decisions.</p> <p>Please see Master Response 38 for information on document length and complexity and Master Response 39 for information regarding the public review period duration.</p>
1612	37	<p>[ATT1:] The size of the DEIR/EIS also prevents informed decision making by the CEQA lead agency and the responsible agencies. Prior to approving a project for which an EIR has been prepared, the lead must certify that its decision-making body reviewed and considered the information contained in the final EIR. (CEQA Guidelines, [Section] 15090, subd. (a)(2).) When the lead agency's decision-making body is a single official rather than a board or commission, that individual must certify that he or she has personally read and considered the entire EIR before making a decision to approve the project; certification cannot be delegated by the decision-maker to staff or to a subordinate body. (California Clean Energy Com. v. City of San Jose (2013) 220 Cal.App.4th 1325; POET, LLC v. State Air Resources Bd. (2013) 218 Cal.App.4th 681; CEQA Guidelines, [Section] 15025, subd. (b)(1).) While a responsible agency is not required to certify the EIR prior to approving its portion of the overall project, the responsible agency is still required to consider all relevant portions of the EIR prior to making a decision. (CEQA Guidelines, [Section] 15096, subd. (f).)</p> <p>DWR's CEQA regulations allow the Director to delegate decision-making authority. (Cal. Code Regs, tit. 23, [Section] 502, subd. (b).) Because approval of the BDCP project will irrevocably set the course of California's water, agriculture, and urban development policy for the next half century, we expect that the Director will not delegate decision-making authority over this important project to a subordinate. Although we also question whether an unelected public official should be entrusted with major statewide policy decisions of this nature, we will express no opinion at this time as to whether the Legislature has given such policy-setting authority to the Director. Instead, our immediate concern is whether the Director is capable of thoughtfully reviewing the entire 40,000-page DEIR/EIS, plus all comments and responses, while simultaneously carrying out his normal responsibilities as Director of DWR. Like any other citizen, the Director would need to take substantial time away from his normal workplace responsibilities in order to review and consider the entire 40,000-page DEIR/EIS within the allotted time.</p> <p>Whether the Director will in fact personally read and consider the entire 40,000-page DEIR/EIS, plus all comments and responses, prior to taking action on the BDCP project is almost beside the point. Often, the public's perception of governmental operations is more important than actual fact. We fear that the Director's certification of this DEIR/EIS will be seen as a sham, a mere formality required to ratify a pre-ordained decision. The inevitable result will be to further undermine the public's faith in a CEQA process that, while not perfect, has helped to improve public agency decision making in California while giving protection to the environment.</p>	<p>This comment is related to the EIR/EIS decision-making process and the requirements of the CEQA lead agency to review the EIR/EIS prior to certification. As these processes have not occurred as of the writing of this Final EIR/EIS judgement about the ability of DWR to meet these requirements should be reserved. DWR is committed to fully complying with CEQA statutes and guidelines.</p>
1612	38	<p>[ATT1:] The BDCP project is arguably the largest public infrastructure project ever to be reviewed under CEQA. We firmly believe that the CEQA process can work for a project of this size as long as the statute and the CEQA Guidelines are followed, both in letter and in spirit. In order for the CEQA process to work as intended, however, the lead agency must produce an EIR--the heart of CEQA--that is large enough to provide adequate environmental</p>	<p>The proposed project is a joint EIR/EIS prepared in compliance with the requirements of CEQA and NEPA. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. This document, along with the Draft EIR/EIS and RDEIR/SDEIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>information about the proposed project yet small enough to be reviewed and understood by both the public and the decision maker within a limited amount of time. The courts, of course, have ultimate authority to decide whether the level of information presented in a particular EIR is adequate, but the adequacy of the information is necessarily a function of the document's overall size. An EIR is inadequate as an informational document if the document as a whole is not usable by its intended audience. The lead agencies here have done a substantial disservice both to the public and to agency decision makers by producing a document that is inherently unusable for either audience due to its size.</p>	<p>proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions.</p> <p>Please see Master Response 38 for information on document length and complexity.</p>
1612	39	<p>[ATT1:] The Project Description Provided in the DEIR/EIS is not Accurate, Stable, or Finite</p> <p>It is axiomatic that an accurate, stable, and finite project description is the sine qua non of an informative and legally sufficient EIR. Similarly, under NEPA, an EIS must accurately describe the federal action being taken. A fundamental defect of the BDCP DEIR/EIS is its failure to provide an accurate, stable, and finite description of the proposed project.</p> <p>A legally sufficient project description provides important benefits both to the public and to agencies. The public and commenting agencies, including responsible agencies, needs to be adequately informed of the parameters and details of the proposed project in order to offer meaningful comments on the proposal, including whether the lead agency has sufficiently considered and discussed all impacts, potential mitigation measures, and a reasonable range of project alternatives that should be evaluated in the EIR or EIS. An adequate project description ensures that the public, commenting agencies, and the lead agency are all evaluating and discussing the same proposal. The lead agency, as an institution, needs to create an adequate record of what it studied as the proposed project in its EIR, so that the institution, in the future, will have a clear record of what was and was not studied. The need for subsequent or supplement environmental review depends, in part, on whether substantial changes are proposed in a project. (CEQA Guidelines, [Sections] 15162 &amp; 15163.) If there is not a clear and unambiguous record of the parameters and details of the project studied in the original EIR, it will be impossible to determine whether subsequently proposed modifications to the project are significant or not. Close or doubtful calls will likely be resolved adverse to the agency, resulting in a requirement to conduct subsequent environmental reviews that could otherwise have been avoided through better drafting of the project description in the original EIR.</p>	<p>Please refer to Master Response 2 which addresses project-level versus program level portions of the project and analyses.</p>
1612	40	<p>[ATT1:] The project description provided in this DEIR/EIS does not comply with regulatory standards and is therefore inadequate. Section 15124 of the CEQA Guidelines describes the four mandatory elements of a legally adequate project description: the precise location and boundaries of the project, a statement of project objectives, a general description of the project's technical, economic, and environmental characteristics, and a statement of intended uses of the EIR, including a list of agencies, approvals, and related environmental review and consultation requirements. All of these elements must be present. Section 15124 section further requires that the presentation of such information in the EIR "should not supply extensive detail beyond that needed for evaluation and review of the environmental impact."</p> <p>It has been our experience that the four required elements of a CEQA project description are typically presented in a single chapter of an EIR, usually titled "Project Description." This straightforward approach to document formatting enhances the informational value of the EIR to the public and the decision maker, and assists a reviewing court in determining the</p>	<p>Chapter 3 of the DEIR/EIS is entitled, Description of Alternatives. It describes the primary features not just of Alternative 4, the CEQA Preferred Alternative in the Draft EIR/EIS (see pp. 3-64 – 3-69), but also the features of all of the other Alternatives discussed in the document. For each alternative, the text includes all of the general information required by CEQA Guidelines section 15124 regarding each alternative's "technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." (State CEQA Guidelines, § 15124[c].) Although, as the commenter notes, the Introduction chapter includes a footnote that refers the reader to the BDCP itself for more details regarding the "proposed project" (Alternative 4) (see p. p. 1-2, fn. 3), Chapter 3 nevertheless includes all of the detail required by section 15124, and far more. The DEIR/EIS, then, did not, as the commenter suggests, use the BDCP text "in lieu" of a Project Description in the EIR/EIS itself.</p> <p>The commenter suggests that, because its "experience" with EIRs has made the commenter more familiar with a different approach to presenting a Project Description, the DEIR/EIS somehow fails to meet legal requirements. The commenter has not proven the point, and the Lead Agencies do not agree.</p> <p>The commenter is incorrect in stating that the DEIR/EIS violates State CEQA Guidelines section 15120(a),</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>legal sufficiency of the document. In contrast to this standard practice, the BDCP DEIR/EIS provides a bulleted list of project objectives in Section 2.3, a non-specific statement of intended uses for the EIR/EIS in Section 1.6, a single state-wide map of the Project Area in Figure 1-4, and a general description of the project's technical characteristics scattered across Sections 3.5.9, 3.6.1, 3.6.4, 3.6.2, 3.6.3, and perhaps elsewhere. The DEIR/EIS also includes a reference statement, buried within a footnote, that Chapter 3 of the BDCP document "more fully describes the proposed project." (DEIR/EIS p. 1-2, fn. 3.) We have never seen a programmatic EIR that used the plan or program document itself as the EIR's project description in lieu of providing a concise summary of the plan or program, but the format of the BDCP DEIR/EIS is unprecedented in many ways. However, the reference to Chapter 3 of the BDCP serves as an unstable project description because the IA, in Section 6.0 on page 15, states that its terms will prevail over any conflicting terms in the BDCP document.</p> <p>The CEQA Guidelines allow flexibility in document formatting, but recommend that each of the required elements, including the project description, be covered in a distinct section of the EIR; if a required element is presented in multiple sections of the EIR, the document must state where in the document that required element discussed. (CEQA Guidelines, 15120(a).) The DEIR/EIS fails this requirement. For example, the Table of Contents indicates that the Project Objectives are presented in Chapter 2 but anyone wondering where a description of the proposed project might be found in the DEIR/EIS is left guessing.</p>	<p>which provides that EIRs "shall contain the information outlined in this article, but the format of the document may be varied. Each element must be covered, and when these elements are not separated into distinct sections, the document shall state where in the document each element is discussed." The commenter faults the DEIR/EIS for addressing project objectives in Chapter 2 while addressing the description of Alternatives in Chapter 3, and says that readers were not alerted to this split. The commenter makes too much of the existence of these two separate chapters, the first of which is very short. At the very beginning of Chapter 2, readers are alerted to the fact that the description of the project alternatives can be found in Chapter 3: "The BDCP reflects the outcome of a multiyear collaboration between DWR, Reclamation, state and federal fish and wildlife agencies, state and federal water contractors, nongovernmental organizations, agricultural and fishing interests, and the general public. The project objectives and purpose and need described in this chapter were developed as a part of this process. Chapter 3, Description of Alternatives, sets out the range of reasonable alternatives to meet the project objectives and purpose and need for the BDCP EIR/EIS."</p> <p>More to the point, a glance at the very first few pages of the very detailed Table of Contents makes it clear that Subchapter 1.6 of Chapter 1 (Introduction) addresses "Intended Uses of this EIR/EIS and Agency Roles and Responsibilities"; that Chapter 2 sets forth "Project Objectives and Purpose and Need"; that Chapter 3 includes a "Description of Alternatives"; and that Subchapter 3.1.1 of Chapter 3 describes the "Preferred Alternative Under CEQA." Thus, all elements of an EIR Project Description are included in Chapters 1, 2, and 3, all of which are clearly foreshadowed in the Table of Contents.</p>
1612	41	<p>[ATT1:] The four required [CEQA] elements of a project must, of course, be in agreement with each other. Quantitative project objectives must be plausibly achievable through the project's described technical, economic, and environmental characteristics. For example, if a project objective is to transport a specific quantity of water from point A to point B, the proposed hardware must be sized appropriately to accomplish this objective, neither too large nor too small. If an EIR's project characteristics are inconsistent with its project objectives, then the project description is not stable throughout the document. In addition, if the described project characteristics are capable of achieving something other than the stated project objectives, and appropriate limitations are not included through other parts of the project description, it is possible that the lead agency has failed to provide an accurate description of its true proposal.</p> <p>Qualitative project objectives must be defined and quantified in the description of the project's technical, economic, and environmental characteristics. Without quantification in either of these elements, the project description is not finite. Adaptive management is inherently not finite because it is intentionally open-ended in order to be quantified and adjusted over time as new information becomes available. While properly bounded adaptive management is an appropriate mitigation technique, both in an EIR or EIS and in an HCP or NCCP, it can never be appropriate for a project description in an environmental document or a description of underlying otherwise lawful activities in a conservation plan. For this reason, the adaptive management portions of the BDCP project must not be evaluated as part of the proposed project, but must instead be evaluated as potential mitigation for the impacts that will be caused by the project.</p>	<p>Chapter 3 and Appendix 3C contain detailed descriptions of the conveyance features and construction assumptions. Chapter 2 contains a description of the project's purpose, need, and objectives. Please refer to Master Response 33 regarding adaptive management.</p>
1612	42	<p>[ATT1:] One of the DEIR/EIS's stated project objectives, on page 2-3, is to "restore and protect the ability of the SWP and CVP to deliver up to full contract amounts." While water delivery is identified as only one of three broad project objectives in the DEIR/EIS, the IA clarifies, on page 21, that the development and operation of new Delta water conveyance</p>	<p>The current preferred CEQA/NEPA alternative (Alternative 4A) does not include an HCP/NCCP or implementation agreement. Estimates of the water supply exports and deliveries based on CALSIM modeling can be found in Chapter 5, Water Supply which describes the estimated SWP/CVP water supply changes for alternatives compared to existing conditions and under no action alternative conditions. Analysis of the No</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>facilities is the primary objective of the BDCP project. Given its recently acknowledged importance to the overall project, it is critical that the water delivery objective be quantified in the project description with as much specificity as possible. However, on page 2-5, the phrase "up to full contract amount" is defined as any quantity between the amount delivered under No Project Alternative and the aggregate amount described in all existing contracts. With this qualification, the water delivery objective is neither stable nor finite, but is instead a broad range with no intended target value identified within that range.</p> <p>In addition, with this qualification of the phrase "up to full contract amount," the DEIR/EIS discloses that the No Project Alternative fully attains DWR's stated water delivery objective. Of the three bulleted project objectives identified on page 2-3, the No Project Alternative fully attains the water delivery objective and renders the HCP objective moot, leaving Delta ecosystem improvement as the sole remaining objective left to be attained by the project. As a result, project alternatives focused only on ecosystem improvement and restoration, without any new conveyance facilities or changes in SWP/CVP operations beyond those described in the No Project Alternative, should have been evaluated in the DEIR/EIS.</p>	<p>Action Alternative indicates that future SWP/CVP water supply exports could decline compared to existing conditions because of increased water supply demands and the effects of sea-level-rise and climate change. The action alternatives are intended to improve water supply reliability and Delta ecosystem conditions which is reflected in the project objectives and purpose and need statement. Please also refer to Master Response 3 which addresses project objectives and the purpose and need statement.</p>
1612	43	<p>[ATT1:] While the broad range of water delivery quantity encompassed by the phrase "up to full contract amount" has a clear upper bound, it is not clear whether that upper bound could be achieved by the proposed project. Given the description of the proposed project's technical characteristics diffused throughout Chapter 3 and elsewhere, all that is certain regarding the water delivery capability of the proposed conveyance facility is that it would have a maximum pumping capacity of 9,000 cfs. As a result, regardless of the lower and upper bounds for water delivery defined in the project objective, it is not clear how much water actually could be delivered by the proposed project. The equivocal conclusions on pages 5-106 to 5-107, that deliveries might show a small decrease or an increase relative to an unquantified amount, are not informative.</p> <p>Although the lead agencies' intended water delivery capabilities for the proposed project are not quantified in the stated project objectives, the 9,000 cfs pumping/export capacity of the proposed project, described in section 4.2.1.1.1 of the BDCP document, is an important benchmark for conducting environmental analysis in the DEIR/EIS. Because the DEIR/EIS fails to quantify the total amount of additional water that the lead agencies seek to export from the Delta through construction and operation of the proposed project, the lead agencies' proposed maximum rate of export from the proposed North Delta diversion facility necessarily serves as the required quantitative objective for the project.</p> <p>As stated above, one of the reasons that an accurate, stable, and finite project description is the sine qua non of a legally sufficient EIR is that the range of project alternatives required to be discussed in the EIR is dependent on the project objectives component of the EIR's project description. An EIR must describe and evaluate "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." (CEQA Guidelines, [Section] 15126.6, subd. (a).) Ten of the fourteen "action" alternatives to the proposed project described and evaluated in the DEIR/EIS would redesign the proposed North Delta diversion facility to have a pumping/export capacity of 15,000 cfs. The DEIR/EIS does not explain how any of the ten 15,000 cfs alternatives would "avoid or substantially lessen any of the significant effects of the project" and it seems highly unusual that a substantially larger project, which could pump/export from the North Delta at 167% of the stated project objective, would be more</p>	<p>The phrase "up to full contract amount" does set a clear upper bound, but it would probably only be achieved infrequently, as the operations of any of the alternatives will have to occur within strict parameters set by environmental considerations relating to threatened and endangered aquatic species as well as water quality and other considerations. Most likely, full contract amounts will be satisfied only in very wet years when environmental limitations permit relatively high levels of exports. Figures showing anticipated water deliveries can be found in DEIR/EIS Chapter 5 (Water Supply). (See Figures 5-17 – 5-20 [annual exports] and Figures 5-21 – 5-29 [monthly exports].)</p> <p>The Lead Agencies recognize that the range of alternatives addressed in the DEIR/EIS includes some options with greater impacts on certain resources than would occur under the (former) CEQA Preferred Alternative (4), though each of the action alternative represents a particular set of environmental tradeoffs (with lower export alternatives creating more potential impacts South of the Delta due to the availability of less water in importing areas). (See DEIR/EIS, pp. 31-4 – 31-8.) This approach is not legally problematic, however.</p> <p>The range of alternatives, as set forth in the DEIR/EIS, is a function of a variety of factors, including the language of California Water Code section 85320(b)(2) and the evolution of the proposed BDCP through the several years preceding release of the Draft EIR/EIS. In preparing the DEIR/EIS, the Lead Agencies intended that the EIR portion of the joint CEQA/NEPA document would satisfy the requirements of section 85320, as that statute provided a roadmap by which the BDCP – as a Habitat Conservation Plan/Natural Community Conservation Plan – could be included by operation of law within the Delta Plan as prepared by the Delta Stewardship Council. As negotiated in a special legislative session dealing solely with water issues in the fall of 2009, section 85320 laid out a recipe for an EIR that looked at "[a] reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives and including further capacity and design options of a lined canal, an unlined canal, and pipelines." The recipe also included "[a] reasonable range of flow criteria, rates of diversion, and other operational criteria." The Delta Reform Act itself, moreover, set as a policy objectives "provid[ing] a more reliable water supply," "[p]roviding ... new and improved infrastructure, including ... Delta conveyance facilities," and "[i]mprov[ing] the water conveyance system[.]" (Cal. Wat. Code, §§ 85001[c], 85004[a], and 85020[f].) Given the project proponents' original intention to prepare an HCP/NCCP that would qualify for inclusion in the Delta Plan pursuant to Water Code section 85320, and given State policy favoring new Delta conveyance facilities, the Lead Agencies wrote the DEIR/EIS to include a wide range of conveyance options.</p> <p>The eventual numbering the Alternatives (1 through 9 with additional variations) reflected the continual evolution towards lower and lower exports as the Lead Agencies worked through numerous environmental</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>environmentally benign than the proposed project.</p> <p>Although the BDCP document describes the proposed project as including a 9,000 cfs North Delta diversion facility, the inclusion of ten 15,000 cfs alternatives in the DEIR/EIS creates the possibility that the lead agency may later approve amendments to the BDCP project to increase diversion capacity to 15,000 cfs without conducting further environmental review. In addition, because the lead agency has included these ten 15,000 cfs alternatives in its DEIR/EIS without any apparent environmental reason to do so, it raises the possibility that the lead agency's true proposed project includes a 15,000 cfs diversion facility rather than a 9,000 cfs one. Regardless of the lead agency's true intent, the inclusion of oversized project alternatives in the DEIR/EIS without apparent environmental reason to do so renders the DEIR/EIS's project description inaccurate and unstable.</p>	<p>issues in the years leading up to the release of the DEIR/EIS. The chronology is set forth in Subchapter 3.2 of Chapter 2 ("Alternatives Development Process") and is described in much more detail in Appendix 3A ("Identification of Water Conveyance Alternatives, Conservation Measure 1"). The proposal originally favored by DWR and the State Water Contractors was a surface canal east of the Sacramento River served by five new intakes. (See Alternative 1B.) Over time, however, a less ambitious proposed project emerged, but only after the original numbering of the various alternatives had been set. Thus, Alternative 4 was the CEQA Preferred Alternative. Unlike Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 6A, 6B, and 6C, Alternative 4A had only three intakes, and had operational criteria intended to be highly protective of aquatic species. Unlike Alternatives 1B, 1C, 2B, 2C, 6B, and 6C, all of which would include surface canals, Alternative 4 would include a subsurface pipeline/tunnel as a means of minimizing impacts.</p> <p>The choice of Alternative 4 as the CEQA Preferred Alternative, like the later choice in the Partially Recirculated Draft EIR/Supplement to Draft EIS to make Alternative 4A the CEQA and NEPA Preferred Alternative, did not cause the alternatives with five intakes and surface canals to cease to be legitimate alternatives under CEQA or NEPA. CEQA requires that an EIR include a "range of reasonable alternatives to the project ... which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project[.]" (State CEQA Guidelines, § 15126.6[a].) The Lead Agencies have no doubt that the eventual range of 18 alternatives (in both the DEIR/EIS and the RDEIR/SDEIS) far exceed the number of alternatives required in an EIR or EIS. Most EIRs and EISs have far fewer alternatives. The Lead Agencies also believe that even the alternatives with five intakes and surface canals contribute to informed decision making, as they represent a different set of environmental tradeoffs than would occur with fewer intakes and pipelines/tunnels rather than canals. In general, a greater capacity in the north Delta should reduce adverse effects associated with pumping from existing facilities in the South Delta. (See DEIR, pp. 31-5 - 31-6.) Alternatives with reduced exports could contribute to adverse effects in regions served by SWP and CVP exports. (DEIR, p. 31-8; Appendix 5B, Responses to Reduced South of Delta Water Supplies, pp. 5B-17 – 5B -27.)</p> <p>For additional information regarding alternatives development, please see Master Response 4.</p>
1612	44	<p>[ATT1:] The Proposed Project's Technical Characteristics for Exports from the South Delta are not Consistent with the Stated Project Objectives</p> <p>The modeling data for the proposed project (Alternative 4) reveals that the monthly exports from the South Delta exceeded the U.S. Army Corps limits on inflow to Clifton Court Forebay from the South Delta. As described on page 5-36 of the DEIR/EIS, per U.S. Army Corps of Engineers Public Notice 5820A (13 October 1981), the USACE determined that DWR would not require additional USACE permitting for the SWP's diversions from the Delta as long as the SWP's daily diversion into Clifton Court Forebay would not exceed 13,870 acre-feet and the 3-day average diversions into Clifton Court Forebay would not exceed 13,250 acre-feet. (DEIR, section 5.2.1.3, p. 5.36.) In addition, the SWP can increase diversions into Clifton Court Forebay by one third of the San Joaquin River flow at Vernalis during the period from mid-December to mid-March when the flow of the San Joaquin River at Vernalis exceeds 1,000 cfs. An additional capacity of 500 cfs (up to 7,180 cfs) is allowed into Clifton Court Forebay for July-September for reducing impact of NMFS Biological Opinion (June 2009) Action IV.2.1 Phase II on the SWP. (DEIR, p. 5A-B63.)</p> <p>During the July through September period, in the CALSIM modeling studies for the proposed project (Alternative 4), the inflows to Clifton Court (SWP through-Delta exports) were as high as 9,800 cfs, for a total South Delta export of 14,400 cfs. Additional analysis of the BDCP project's changes to exports is attached to these comments of Solano County as Attachment A [see ATT2]. Considering the existing total exports are normally no more than</p>	<p>The comment about the Banks Pumping Plant diversion limits extended to 10,300 cfs is consistent with the information included in Chapter 3, Description of Alternatives, in the Draft EIR/EIS. The EIR/EIS recognizes that this change in operations would require approval by the USACE.</p> <p>Under the Existing Conditions and the No Action Alternative, full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors. Water exports are less under Alternatives 6, 7, 8, and 9 on an average annual basis as compared to Existing Conditions and the No Action Alternative (see Figure C-10-8, Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS). The comment includes values consistent with projected long-term average exports for the CALSIM II model results under Alternatives 1 through 9. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures). Some of these future water supply actions are included in the No Action Alternative and all of the alternatives, as described in Appendix 3D, Defining Existing Conditions, No Action Alternative, No Project Alternative, and Cumulative Impact Conditions, of the EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>11,280-11,780 cfs in the July through September period, this is not consistent with the goal or need to reduce exports from the South Delta.</p> <p>The DEIR/EIS is also inadequate because it fails to clearly disclose that the BDCP is proposing to eliminate existing limits on the inflow to Clifton Court. In several locations, it is noted that pumping at Banks Pumping Plant is assumed to be up to the installed capacity of 10,300 cfs. But this could just apply to the sum of North and South Delta exports. In Table 3-6 on page 3-36 of the DEIR/EIS, it is stated that Alternatives 1 through 4 and Alternatives 6 through 8 do not incorporate the operational rule related to the permitted limit on Clifton Court Forebay inflow (6,680 cfs plus 1/3 of San Joaquin River Dec 15--March 15). However, it is not clear whether the operation rule is therefore 10,300 cfs.</p> <p>The proposal to increase exports from the South Delta for the SWP is a major change that could have significant impacts on the Delta ecosystem and Delta water quality. It is also is contrary to the goal of reducing the existing adverse impacts of South Delta diversions. The DEIR/EIS must be revised to fully disclose DWR's intent to increase South Delta exports and to analyze operations of the proposed BDCP project without eliminating the current U.S. Army Corps limits. This will enable the public and regulatory agencies to gauge the adverse environmental impacts of this proposed change.</p>	
1612	45	<p>[ATT1:] The DEIR/EIS does not Describe the Whole of the Action</p> <p>Under CEQA, the term "project" is broadly defined as "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines, [Section] 15378, subd. (a).) "The term 'project' refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term 'project' does not mean each separate governmental approval." (CEQA Guidelines, [Section] 15378, subd. (c).) NEPA similarly requires that a single EIS encompass the full set of new and ongoing federal actions that are connected, cumulative, or similar in timing or geography. (40 CFR [Section] 1508.25.) The "whole of the action" includes all actions taken by the lead agency and all responsible agencies to implement the project or any part of the project. Each of these permits or other approval actions must be listed in the EIR. (CEQA Guidelines, [Section] 15124, subd. (d)(1)(B).) The DEIR/EIS, in Table 1-2, identifies agencies that will be using the DEIR/EIS and the statutory authority under which those agencies will be acting, but it does not list the permits or other approvals required to implement the project.</p> <p>The "whole of the action" that is the BDCP project includes at least the following five components:</p> <ol style="list-style-type: none"> <li>1. All proposed changes in the program for export and delivery of water from the Delta using the SWP and CVP, including both operational changes and facility changes. While the project description must describe what these proposed program amendments are, the No Project Alternative must describe the existing SWP/CVP program and what is likely to occur into the future if that existing program is not amended as proposed. (CEQA Guidelines, [Section] 15126.6, subd. (e)(3)(A).) The proposed changes to the SWP/CVP program includes the following four sub-components: <ol style="list-style-type: none"> <li>a. Activities within the Delta Region or "Plan Area," as defined in Section 1.5.2 and shown in Figures 1-4 and 1-9 of the DEIR/EIS, that are likely to cause incidental take. Generally, these</li> </ol> </li> </ol>	<p>The EIR/EIS provides the analysis of the proposed project and alternatives. Please see Master Response 8, for a discussion of analysis of the project as a whole. Chapter 1 of the EIR/EIS details the use by responsible agencies.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>are the underlying otherwise lawful activities that necessitate the preparation of the BDCP as a HCP and NCCP. Specifically, these activities include the construction of new facilities, the improvement of existing facilities, and changes in SWP/CVP system operations within the Plan Area.</p> <p>b. Activities within the Delta Region or Plan Area that will not cause incidental take, either directly or indirectly, and therefore do not need to be described or assessed in the BDCP document.</p> <p>c. Any proposed changes in the SWP/CVP program, including facilities or operations, the will occur Upstream of the Delta Region. (See Section 1.5.1 of the DEIR/EIS.) This area is outside of the Plan Area and therefore not part of the BDCP document.</p> <p>d. Proposed changes in the SWP/CVP program, including facilities or operations, that will occur in the SWP and CVP Service Areas. (See Section 1.5.3 of the DEIR/EIS.) These areas are outside of the Plan Area and are therefore not part of the BDCP document. The most significant change in the SWP/CVP program that will occur in these areas is increased water deliveries, above the levels described in the No Project Alternative, to meet anticipated increased demand or needs in those areas.</p> <p>2. Measures proposed in the BDCP, for the purpose of that document serving as a HCP and NCCP, to minimize or mitigate the impacts of incidental take caused by any of the identified underlying otherwise lawful activities. Excluded from this component are measures not specifically identified in the BDCP but instead left to be defined and developed over time through adaptive management. All measures that utilize adaptive management or are otherwise to be developed and defined over time should be evaluated as mitigation in the DEIR/EIS, rather than as part of the proposed project.</p> <p>3. All proposed actions to improve and restore the Delta ecosystem other than measures proposed in the BDCP for the purpose of that document serving as a HCP and NCCP. Also excluded from this component would be any actions to restore the Delta ecosystem that must be taken pursuant to an enforcement order; such involuntary actions would not be part of the proposed project, but would need to be identified and addressed in the cumulative impact section of the DEIR/EIS.</p> <p>4. The BDCP Implementation Agreement, to the extent it expands on or proposes activities not included in any of the above-described components.</p> <p>5. All other activities that will normally and naturally occur as a result of the any of the above-described activities without being subject to separate CEQA review and discretionary approval. For example, if the any of proposed increase delivery of water to SWP/CVP service areas is to serve increase demand by agricultural customers, and these customers can increase their use without CEQA review or discretionary approval, such increased water use must be evaluated as part of the proposed project in the DEIR/EIS.</p>	
1612	46	<p>[ATT1:] The No Project Alternative describes the amount of water that would be delivered to the contractors given current or known constraints. The continued operation of the SWP/CVP system, and the continued delivery of water as described in the No Project Alternative, is exempt from CEQA review as an existing or ongoing project. Delivery of the full contract amount of water to SWP and CVP contractors, or any amount greater that can be delivered by the existing SWP/CVP system given current or known constraints, is not</p>	<p>The range of potential water deliveries for the proposed project has been analyzed in this EIR/EIS. These water deliveries are consistent with both the existing SWP and CVP contracts. The actual amount delivered in any year depends on hydrology, water rights conditions, the requirements under the Biological Opinions, and other applicable SWP/CVP operating conditions.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>exempt from CEQA review as an existing or ongoing project. (North Coast Rivers Alliance v. Westlands Water Dist. (7/3/2014) xxx Cal.App.4th xxx.)</p> <p>Because the delivery commitments made in the existing contracts pre-date CEQA, the environmental impacts of delivery of that full contract amount to SWP and CVP service areas has never been subject to environmental review. The difference between what the contracts promise and what the existing system can actually supply is only paper water and not an enforceable entitlement. (Planning and Conservation League v. Dept. of Water Resources (2000) 83 Cal.App.4th 892.) In hindsight, it is now clear that DWR over promised when it entered into those contracts, because the facilities necessary for DWR to fully perform under those contracts simply did not exist for reasons outside the control of DWR. As a result, the amounts promised in the existing contracts may provide priority to existing contractors in a situation of competing claims to limited supply, but otherwise those amounts are only a wishful number without legal significance.</p>	
1612	47	<p>[ATT1:] The purpose of the BDCP project is not to continue ongoing operations under a pre-CEQA or otherwise existing project--this scenario is the represented by the No Project Alternative--but to create new water delivery capability. The SWP/CVP facilities located between the Delta and the SWP and CVP service areas is essentially a large pipe that withdraws water from the Delta at one end of the pipe and delivers it to the SWP and CVP contractors at the other end. The DEIR/EIS evaluates the project's environmental impacts in the Delta, but gives only cursory treatment to the project's environmental impacts in the SWP and CVP service areas, as if the water simply disappeared into a black hole at the delivery end of the pipe. While such impacts at the delivery end were not required to undergo environmental review at the time the contracts entered into, the impacts that will result from the delivery of more water to the service areas than can be delivered under the No Project Alternative are now subject to such review.</p> <p>Facilitating growth and related land use changes can be either a project objective, a growth inducing project impact, or both, depending on where it will occur. Growth and land use changes that will occur within the project area as a direct result of the project is a project objective and therefore must be evaluated as part of the project. (Bozung v. Local Agency Formation Com. (1975) 13 Cal.3d 263.) Growth and land use changes that are likely to occur in the surrounding environment near the project area as a direct or indirect result of the project is a growth inducing impact of the project. (CEQA Guidelines, [Section] 15126.2, subd. (d).) When growth will occur both within the project area and in the surrounding area due to installation of new or improved public infrastructure, growth within the project area must be evaluated as part of the project while off-site growth must be evaluated as a growth inducing impact of the project. (Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200.)</p> <p>The "whole of the action" that is the BDCP project includes growth and land use changes in the SWP and CVP service areas, including changed agricultural practices, that will be served or facilitated by the additional water delivered to those areas above the amounts that could be delivered under the No Project Alternative. To the extent the increase in SWP/CVP water delivery to contractors is the first step in development or land use changes within the SWP and CVP service areas, the effects of probable ultimate development in these areas based on that increased water supply must be evaluated in the DEIR/EIS in order to avoid piecemealing review of the whole of the action. (Napa Citizens for Honest Government v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342.)</p>	<p>Project objectives and the purpose and need statement are presented in Chapter 2 of this Final EIR/EIS and does not include growth in the services areas. However, the result of exports estimated under the alternatives are evaluated as indirect effects of the proposed project and alternatives, as are the potential effects of water transfers. For more information on potential growth effects due to project implementation please see Chapter 30 Growth Inducement and Other Indirect Effects of the EIR/EIS.</p> <p>Chapter 30, EIR/EIS, describes long-term water demand in the hydrologic regions based on projections from the California Water Plan. The chapter goes on to compare the modeled changes in deliveries associated with alternatives to the projected changes in future demand in order to evaluate the potential for the proposed project implementation to remove obstacles to growth. The proposed project does not propose any change to storage or conveyance capacity of facilities outside of the Plan Area. Thus, water diverted from new north Delta facilities would find its way into existing facilities.</p> <p>The State Water Resources Control Board, not DWR, is responsible for decisions relating to water rights. DWR holds water rights approved by the State Water Resources Control Board but does not have the power or authority to issue water rights to others. Additionally, the proposed project does not seek any new water rights nor include any regulatory actions that would affect water rights holders other than DWR, Reclamation, and SWP and CVP contractors.</p> <p>Importantly, all water exported by the SWP and CVP is the subject of the existing water rights of those two agencies. Exports do not come at the expense of other water rights holders. The proposed project and its alternatives analyzed in the EIR/EIS only include the use of water from existing SWP and CVP water rights or voluntary water transfers from other water rights holders. The proposed project and its alternatives do not reduce the protections for other water right holders.</p> <p>With regards to water rights, please see Master Response 32.</p> <p>Please also refer to Master Response 8, regarding analyzing the project as a whole.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1612	48	<p>[ATT1:] Water supply and water demand are complementary forces, and planning for both can be done either from the supply side or the demand side. The DEIR/EIS assumes increased demand or need for water in the export service areas, based on Department of Finance forecasts and growth projections contained in the California Water Plan. (See DEIR/EIS sections 30.1.2 &amp; 30.1.3.) The California Water Plan presents DWR's assumptions and other estimates regarding future population, future land use patterns, and future water needs. (Water Code, [Section] 10004.6, subd. (c)(3), (5) &amp; (6).) The California Water Plan is a supply-side planning document, based on DWR's best estimate as to where growth might occur; it is not a demand-side planning document prepared for the purpose of identifying where growth should occur. Under the Planning and Zoning Law, the Legislature has assigned to cities and counties, and not to DWR, the responsibility of regulating where growth occurs within California through the adoption of enforceable demand-side land use plans. Cities and counties carry out this responsibility by adopting local general plans. (Govt. Code, [Section] 65302.) The California Water Plan does not serve the same function as adopted local general plans. When the California Water Plan is erroneously used as a demand-side plan in lieu of adopted general plans to justify construction of water supply infrastructure, then, under the principle of "if you build it, they will come," DWR's own growth and water demand estimates are likely to become self-fulfilling prophecies.</p> <p>Approval of a water supply project to accommodate anticipated but unplanned growth, based on a supply-side planning document, "places the proverbial cart before the horse" and piecemeals the overall project. (County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 949.) Making additional water available to an area removes a major barrier to growth and land use changes within that area, and can virtually assure development. If the BDCP project is approved and additional water is made available to the SWP and CVP service areas, local agencies within those export service areas will have no reason to restrict growth to levels that could be served by the amount of water available under the No Project Alternative. However, once a local agency has adopted a general plan after conducting appropriate CEQA review, the water supplier can generally rely on the general plan EIR as an adequate evaluation of growth and land use changes associated with an increased water supply. (Friends of the Eel River v. Sonoma County Water Agency (2003) 108 Cal.App.4th 859; see also Vineyard Area Citizens v. City of Rancho Cordova (2007) 40 Cal.4th 412.) This latter scenario properly places the proverbial horse before the cart.</p>	<p>Chapter 30, EIR/EIS, describes long-term water demand in the hydrologic regions based on projections from the California Water Plan. The chapter goes on to compare the modeled changes in deliveries associated with alternatives to the projected changes in future demand in order to evaluate the potential for the proposed project implementation to remove obstacles to growth. The proposed project does not propose any change to storage or conveyance capacity of facilities outside of the Plan Area. Thus, water diverted from new north Delta facilities would find its way into existing facilities.</p> <p>The State Water Resources Control Board, not DWR, is responsible for decisions relating to water rights. DWR holds water rights approved by the State Water Resources Control Board but does not have the power or authority to issue water rights to others. Additionally, the proposed project does not seek any new water rights nor include any regulatory actions that would affect water rights holders other than DWR, Reclamation, and SWP and CVP contractors.</p> <p>Importantly, all water exported by the SWP and CVP is the subject of the existing water rights of those two agencies. Exports do not come at the expense of other water rights holders. The proposed project and its alternatives analyzed in the EIR/EIS only include the use of water from existing SWP and CVP water rights or voluntary water transfers from other water rights holders. The proposed project and its alternatives do not reduce the protections for other water right holders.</p> <p>For more information on potential growth effects due to project implementation please see Chapter 30 Growth Inducement and Other Indirect Effects of the EIR/EIS.</p>
1612	49	<p>[ATT1:] The DEIR/EIS Provides an Inadequate List of Permits and Other Approvals Required to Implement the Project</p> <p>An EIR must include a list of permits and other approvals required to implement the project. (CEQA Guidelines, [Section] 15124, subd. (d)(1)(B).) The DEIR/EIS, in Table 1-2, states that DWR will be taking one or more discretionary approval actions pursuant to authority conferred on it generally by the Central Valley Project Act (Water Code, Division VI, Part 3, [Section] 11100 et seq.) and the California Water Resource Development Bond Act (Water Code, [Section] 12930 et seq.), and specifically by section 11451 of the CVP Act, which provides that DWR shall have full charge and control of the construction, operation, and maintenance of the CVP.</p> <p>Table 1-2 does not explicitly reference section 11290, which authorizes DWR to "add additional units [to the CVP] which are consistent with and which may be constructed, maintained, and operated as part of the [CVP] and in furtherance of the single object contemplated by [the Central Valley Project Act]." The Attorney General has concluded that</p>	<p>The referenced Table, which is Table 1-1 in this Final EIR/EIS is a summary of agencies and review, approval, or other responsibilities in addition to those under CEQA and NEPA. Details as suggested in this comment are not directly relevant to the proposed action or alternatives because they are not proposed as described in Chapter 3, Description of Alternatives and would not provide any additional information needed for preparing impact analyses. No revisions to Chapter 1, Introduction related to this comment have been made.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>DWR may authorize additional units to the CVP by administrative action, pursuant to section 11290, but in the absence of DWR taking such administrative action any additional units to the CVP must be authorized by the Legislature. (29 Ops.Atty.Gen. 161 (1957).) In addition, Table 1-2 does not explicitly reference section 12931, which describes the SWP as consisting of State Water Facilities as defined in section 12934(d), and such additional facilities as may be authorized "by the Legislature as part of (1) the Central Valley Project or (2) the California Water Plan, and including additional facilities as [DWR] deems necessary and desirable to meet local needs." Again, DWR may take discretionary administrative action approving additional facilities, based on a finding that such facilities are necessary and desirable to meet local needs, but such facilities are not authorized in the absence of DWR taking action.</p> <p>The DEIR/EIS must identify that DWR will be taking an action approving the construction and operation of one of the conveyance facility alternatives, contingent on approval of incidental take authorization. The DEIR/EIS must also disclose whether DWR will be approving the conveyance facility as (1) an additional unit to the CVP that is consistent with and in furtherance of the single object contemplated by the CVP Act, pursuant to section 11290, (2) an additional facility to the SWP that is necessary and desirable to meet local needs, pursuant to section 12931, (3) a facility that is already a system component of State Water Facilities, as defined in section 12934(d), (4) an additional facility authorized by the Legislature as part of the CVP, or (5) an additional facility authorized by the Legislature as part of the California Water Plan. The DEIR/EIS must also identify that DWR will be taking another administrative action submitting applications to the appropriate state and federal agencies seeking incidental take authorization, based on the commitment by DWR and others to implement the minimization and mitigation measures described in the proposed HCP/NCCP.</p> <p>As described above, the underlying activity that will cause incidental take is separate and distinct from the measures proposed to minimize and mitigate such take, and the lead agency's action approving the underlying activity and its action seeking approval of an incidental take permit should be separately identified in the DEIR/EIS. It would seem appropriate for the lead agency to take action approving the underlying activity, contingent on approval of an incidental take permit, prior to taking action directing that the incidental take permit application be submitted, although the two actions could be taken simultaneously. Regardless of sequence, the first action taken will constitute approval of the whole of the action on the part of the lead agency, at which time it must adopt its CEQA findings and Statement of Overriding Considerations, adopt the Mitigation Monitoring or Reporting Plan, and file its Notice of Determination. (See CEQA Guidelines, [Sections] 15091, 15093, 15094 &amp; 15097.) The DEIR/EIS must provide sufficient details regarding the lead agency's approval actions to enable the public to know both what specific conduct by the lead agency will constitute approval of the project and when that conduct is likely to occur.</p>	
1612	50	<p>[ATT1:] The DEIR/EIS Fails to Describe or Evaluate the Possibility of Incomplete Project Approval</p> <p>Although Table 1-2 falls short of the requirements imposed by section 15124 of the CEQA Guidelines, it makes clear that the discretionary approval actions of many state and federal agencies will be required in order for the BDCP project to be fully implemented. Each state agency acting as a responsible agency on the BDCP project must reach its own conclusions on whether or how to approve its own component of the overall project. (CEQA Guidelines, [Section] 15096, subd. (a).) DWR, as the state lead agency, cannot assume that every state</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). Because the preferred Alternative is now the California WaterFix, an IA would only be implemented if another alternative is chosen as part of this environmental review process. This Final EIR/EIS describes the project as a whole as required by CEQA to ensure that all of the environmental effects of the action are considered and disclosed. As the possibility that only portions of the project would be implemented is remote and speculative it has not been considered in this Final EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>responsible agency and every federal agency will approve its piece of the whole of the action. Instead, the DEIR/EIS must evaluate the possibility of partial approval or incomplete implementation of the project.</p> <p>The water delivery commitments made in the existing SWP contracts are a good example of outcomes falling short of forecasts due to incomplete project implementation. If the SWP had been fully implemented as DWR anticipated when it entered into those contracts, the BDCP project would not be necessary, at least not in its current form. What will be the environmental consequences if the BDCP project is not fully implemented as proposed?</p> <p>The Implementing Agreement ("IA") is intended to establish a mechanism that will ensure some portions of the BDCP project are implemented, but it does not cover all portions of the overall project. At a minimum, the DEIR/EIS should evaluate the possibility that only the portions of the BDCP project covered by the IA by real and enforceable funding commitments are implemented.</p> <p>The DEIR/EIS should describe the extent to which implementation of the BDCP project is dependent on future actions by the Legislature, including approval of funding for the project. Although actions by the Legislature are not subject to CEQA (see CEQA Guidelines, [Sections] 15378, subd. (b)(1), &amp; 15383), any required approval actions by the Legislature potentially affecting implementation of the BDCP project or attainment of its anticipated environmental benefits are a contingency that must be addressed in the DEIR/EIS.</p>	
1612	51	<p>[ATT1:] The DEIR/EIS Must Clarify the Baseline Used for Preparation of the BDCP</p> <p>The relevant baseline for conducting environmental impact review under CEQA and NEPA is not necessarily the same as the baseline used for conducting incidental take impact analysis under the state and federal endangered species acts and the NCCPA. Under CEQA, the relevant baseline is existing conditions at the time the Notice of Preparation is issued, although an alternative baseline may also be used in appropriate circumstances. For incidental take impact analysis, the default baseline is existing conditions unless the party or parties seeking authorization for future incidental take have a present enforceable duty to restore habitat or otherwise compensate for past or ongoing incidental take. (Friends of the East Fork v. Thom (W.D.Wash. 2010) 688 F.Supp.2d 1245.)</p> <p>SWRCB's Water Rights Decision 1641 ("D-1641") amended DWR's water rights permits to add terms and conditions intended to protect municipal and industrial, agricultural, and fish and wildlife beneficial uses of the Delta. Pursuant to Water Code section 138.10, DWR prepared a report, dated January 2006, describing its compliance with D- 1641. Pages 22-23 of that report describe DWR's compliance with state and federal ESA requirements.</p> <p>It is not clear from the DEIR/EIS whether DWR is currently operating the SWP system in full compliance with state and federal ESA requirements. If the identified species and their habitat are still in the process of recovery, and will continue to recover into the future if the compliance activities described in the January 2006 report or other presently-required restoration measures continue to be followed, then anticipated future equilibrium conditions of species populations rather than current conditions should be used as the baseline for conducting incidental take impact analysis.</p>	<p>Please refer to Master Response 1 regarding the environmental baseline. The use of existing conditions is fully explained in Chapter 4, Approach to Environmental Analysis. Although other interpretations of what should constitute existing conditions are possible for the purposes of the EIR/EIS analysis it has been decided that conditions at the time of the Notice of Preparation and as described in Chapter 4 and Appendix 3D best represented the baseline for CEQA purposes. However, because the is EIR/EIS is a combined CEQA/NEPA document, the NEPA analysis also presents the No Action Alternative which assumes future conditions in the absence of an action alternative.</p> <p>The amount of water DWR can pump from the new north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the water contractors. Operations for the proposed project would still be consistent with the criteria set by the FWS (2008) and NMFS (2009) BiOps and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the adaptive management process as described in the 2008 and 2009 BiOps (RDEIR/SDEIS Executive Summary ES.2.2). In addition to permitting constraints on daily operations of the SWP and CVP, DWR must maintain proper performance and bypass flows across fish screens when endangered and threatened fish species are present within the north Delta facilities area. The intake fish screens drive the overall size of the intake structure on the riverbank, and have been numbered and sized to permit water to flow through the screens within a predetermined flow regime set by California Department of Fish and Wildlife and NMFS fish screen criteria (BDCP Appendix 5B Section 3.B.3.3).</p>
1612	52	<p>[ATT1:] The DEIR/EIS Must Acknowledge that SWP Water is Exported from the Delta under</p>	<p>Under the range of alternatives considered in the Draft EIR/EIS, only water under existing water rights issued to DWR and Reclamation could be delivered to SWP and CVP water contractors. The EIR/EIS analysis</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Junior Water Rights</p> <p>As part of both the project description and the discussion of the relevant regulatory setting, the DEIR/EIS must acknowledge that SWP water is exported south of the Delta under junior water rights and that the Delta Protection Act of 1959 (California Water Code Sections 12200 et seq.) was intended to protect Delta water users from the, then, future impacts of the SWP. Section 12203 declares the State or the United States should not divert water from the channels of the Sacramento--San Joaquin Delta to which the users within the Delta are entitled. Section 12204 was intended to ensure that no water would be exported which is necessary for salinity control in the Delta and the water needs of users of water in the Delta. Had there been a greater awareness of environmental issues in 1959, fish and wildlife would also have been considered as users of water in the Delta.</p> <p>An essential but unstated objective of the BDCP project must be that the construction and operation of the project will conform with existing law, including the 1959 Delta Protection Act. To accomplish this objective, the project must ensure no water is exported from the Delta that is needed to meet the environmental, water supply, and other needs of the Delta.</p> <p>It is therefore unacceptable for the DEIR/EIS to conclude that adverse water quality impacts caused by exports by junior water rights holders is unavoidable. The 1959 Delta Protection Act requires that these types of impacts be avoided or fully mitigated. The 2009 Delta Reform Act requires that any Delta solution improve Delta water quality as part of the requirement to meet both of the coequal goals. The water quality mitigation measures suggested in Chapter 8 and Appendix 3B are not commitments. DWR only agrees to meet with impacted parties after the new BDCP conveyance facilities are operating and at such time determine whether it is feasible to take further action. This deferral of mitigation development is unacceptable under CEQA. The DEIR/EIS must be revised to recommend binding commitments for mitigating all significant adverse water quality impacts.</p>	<p>assumes delivery of senior water rights, including in-Delta non-SWP and non-CVP water uses, to be delivered prior to delivery of SWP and CVP water contract amounts. The CALSIM II model assumptions includes operations to meet the Delta water quality criteria to the extent of SWP and CVP water rights availability and the need to deliver non-discretionary water rights and refuge water supply deliveries (not including SWP and CVP water contract amounts). The purpose of the EIR/EIS is to disclose potential adverse impacts; and as such, the EIR/EIS presents water quality changes in Chapter 8, Water Quality. Additional mitigation measures to reduce the adverse impacts to a level of less than significant had not been identified, at the time of the Draft EIR/EIS but have been updated in the RDEIR/SDEIS and this Final EIR/EIS to ensure that Alternative 4A, the California WaterFix operations would result in less than significant water quality effects related to electrical conductivity, chloride and bromide as well as for other evaluated constituents.</p>
1612	53	<p>[ATT1:] The DEIR/EIS does not Evaluate the BDCP's Compliance with the Delta Reform Act or its Consistency with the Delta Plan</p> <p>Under the Delta Reform Act ("DRA"; Water Code, [Section] 85000 et seq.), all actions defined as "covered actions" within the DRA must be consistent with the Delta Plan ("DP") adopted by the Delta Stewardship Council. (Water Code, [Section] 85225.) The adoption of the BDCP by DWR, together with all state and local agency approvals of discretionary actions within the Delta or Suisun Marsh implementing the BCDP, are "covered actions" under the DRA. (Water Code, [Section] 85057.5.) The statement on page 13-13 of the DEIR/EIS that the "BDCP is not a project for which a certificate of consistency must be prepared" is not explained and appears to be inconsistent with definition of "covered actions" provided in the DRA. The DRA defines two coequal goals, but the DP and the BDCP are not coequal documents. Because adoption of the BDCP is defined as a covered action under the DRA, and therefore subject to the DRA's consistency requirement, the BDCP is subordinate to the Delta Plan.</p>	<p>The EIR/EIS analyzes all alternatives, including Alternative 4A and presents the compatibility and consistency of Alternative 4A with the Delta Reform Act and the Delta Plan in Appendices 3I and 3J of this Final EIR/EIS. For more information regarding the proposed project's compliance with the Delta Reform Act please also see Master Response 31.</p>
1612	54	<p>[ATT1:] Appendix 3-I of the DEIR/EIS addresses the BDCP's consistency with subsections 85320(b)(2)(A) through (G) of the Delta Reform Act but does not evaluate the BDCP's consistency with the Delta Plan. The statement at page 13-13 of the DEIR/EIS, that "additional discussion of the relationship between BDCP and the Delta Plan can be found in Appendix 3-I," is hollow. On that same page, it is alleged that Chapter 13 of the DEIR/EIS "discusses how the BDCP is consistent with the 14 policies of the Final Draft Delta Plan," but</p>	<p>Please refer to response to comment 1612-53, above.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		the discussion provided is cryptic, conclusory, and buried deep within other discussions. For example, the DEIR/EIS's entire discussion of the proposed project's consistency with the DP is provided in a single paragraph on page 13-107, which concludes that "avoidance of all incompatibilities is likely to be considered infeasible."	
1612	55	[ATT1:] The Delta Plan, adopted several months prior to the release of the DEIR/EIS, is intended to further the coequal goals defined in the Delta Reform Act. The DP includes subgoals and strategies to assist in guiding state and local agency actions related to the Delta. (Water Code, [Section] 85300, subd. (a).) Specifically, it is intended by both the Legislature and the Delta Stewardship Council that implementation by state and local agencies of the various measures included in the DP will promote both a healthy Delta ecosystem and a reliable water supply. (Water Code, [Section] 85302, subd. (c) & (d).) In addition to the measures intended to promote a healthy Delta ecosystem, the DP also includes subgoals and strategies for restoring a healthy ecosystem. (Water Code, [Section] 85302, subd. (e).) The BDCP and the DEIR/EIS fail to evaluate the BDCP's consistency with any of these measures, subgoals, and strategies.	Please refer to response to comment 1612-53, above.
1612	56	[ATT1:] The Delta Reform Act required California Department of Fish and Wildlife to produce flow criteria and biological objectives, and required SWRCB to produce a separate set of flow criteria. (Water Code, [Sections] 85084.5 & 85086.) It is not clear whether the data and conclusions in the BDCP document and in the DEIR/EIS are consistent with the flow criteria and biological objectives that were produced pursuant to these statutory mandates.	As described in Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. Information from that report included "determinations of flow criteria for the Delta ecosystem to protect public trust resources. The report makes clear, however, that the flow criteria do not consider the balancing of public trust resource protection with public interest needs for water. The flow criteria also did not consider other public trust resource needs such as the need to manage cold-water resources in reservoirs tributary to the Delta. Nonetheless, the flow determinations contained in the Delta Flow Criteria Report, together with recent scientific conclusions of other State and federal agencies, including the Department of Fish and Wildlife, National Marine Fisheries Service, and the Interagency Ecological Program provide a useful guide to establish one side of a reasonable range of alternatives" (State Water Resources Board letter dated April 19, 2011). The information in the flow criteria report was used to inform the development of the proposed project.  Please also see Appendix C of the RDEIR/SDEIS Supplemental Modeling Requested by State Water Resources Control Board Related to Increased Delta Outflows.
1612	57	[ATT1:] By statute, the BDCP is intended to serve as a NCCP and HCP. (Water Code, [Sections] 85053 & 85320, subd. (d) & (e).) As a result, the BDCP must maintain the distinction between underlying activities and mitigation measure required in the drafting of those types of multispecies conservation plans. The Delta Reform Act cannot affect the federal ESA or the federal HCP process, and explicitly does not affect NCCPA, CEQA, or the California ESA. (Water Code, [Section] 85032.) Therefore, to the extent there is a conflict between any provision of the DRA and any of these other statutes, the DRA provision must yield to the requirements imposed through the other statute.  The DRA vests planning responsibility for achieving the coequal goals in Delta Stewardship Council and does not authorize the DSC to delegate this planning responsibility to DWR. Given the BDCP's subordinate role with respect to the Delta Plan under the Delta Reform Act, a threshold requirement for the BDCP is for it to explain the purpose of its constellation of underlying activities with respect to the DP. Are the underlying actions identified in the BDCP intended to be actions that implement the DP's measures to promote ecosystem health and water supply reliability, as well as the DP's subgoals and strategies to restore ecosystem health? Or are the BDCP's underlying actions consistent with but largely	Please refer to response to comment 1612-53, above.

DEIRS Ltr#	Cmt#	Comment	Response
		independent of the DP's measures, subgoals, and strategies?	
1612	58	<p>[ATT1:] The DEIR/EIS states that the intent of the lead agencies in proposing the BDCP project is "to advance the coequal goals set forth in the Sacramento--San Joaquin Delta Reform Act of 2009 of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem." (DEIR/EIS, p. 2-5.) However, the intent of the 2009 Delta Reform Act is that the coequal goals will be met through the coordinated actions of numerous agencies all following the roadmap laid out in the Delta Plan. The Delta Plan loses its purpose as a planning document if each agency is free to decide for itself how it can advance the DRA's coequal goals, following its own muse.</p> <p>There is, potentially, a high degree of overlap between the DP and the BDCP, and the DRA anticipates that the two documents will be merged. Because of this close connection between the DP and the BDCP, the failure of the BDCP DEIR/EIS to tier off of the DP EIR suggest that environmental review on either the DP or the BDCP, or both, has been inappropriately piecemealed. At a minimum, the functional relationship between the BDCP and the DP must be explained and evaluated more thoroughly within the DEIR/EIS so that the two plans do not become ships passing in the night, heading to similar but different ports.</p>	<p>Please refer to response to comment 1612-53, above. The BDCP or other action alternatives including the California WaterFix describe the project as a whole as required by CEQA. Please also see Master Response 8.</p> <p>It is not reasonable to suggest that the EIR/EIS be tiered from the Delta Plan EIR, which is currently in legal proceedings.</p>
1612	59	<p>[ATT1:] The DEIR/EIS does not Evaluate the Project's Consistency with Receiving Area General Plans, the Local Protection Program, or the Ecosystem Restoration Program and Recovery Plan</p> <p>Section 15125, subdivision (d), of the CEQA Guidelines requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans.</p> <p>Sections 13.3.3.9 of the DEIR/EIS discuss the project's consistency with city and county general plan land use designations only within a seven-county study area or Plan Area (see DEIR/EIS, sections 13.2.3.4 &amp; 13.2.3.5; see also [Section] 14.1.1), even though the DEIR/EIS acknowledges that the project area for the BDCP project is larger than the Plan Area and includes areas upstream of the Delta region as well as the SWP and CVP export service areas (see DEIR/EIS, p. 1-11). As a result of this narrow focus, the DEIR/EIS has failed to evaluate the project's consistency with general plans applicable in a significant portion of the project area. In order to comply with the general plan consistency evaluation requirement of section 15125, the DEIR/EIS must identify whether the additional water proposed to be delivered to the export service areas relative to the No Project Alternative is intended to support growth and land use changes that have already [been] planned and subjected to environmental impact analysis in adopted general plans, or is instead intended to support growth and land use changes that is anticipated by DWR but has not been planned or subjected to environmental impact analysis by the cities and counties that exercises land use regulatory authority within those areas.</p>	<p>Please refer to Chapter 13, Land Use of this this Final EIR/EIS for land use consistency reviews. For more information regarding local and general plans please see Master Response 11.</p>
1612	60	<p>[ATT1:] The DEIR/EIS concludes, at page 13-18, that all public and private development activities proposed as part of the BDCP project are consistent with the Suisun Marsh Protection Plan ("SMPP"). The analysis that supports this conclusion may be correct, but it is insufficient. As required by the Suisun Marsh Protection Act, Solano County has prepared a Local Protection Program ("LPP") regulating development within the unincorporated area of the Suisun Marsh. (See Pub. Res. Code, [Section] 29400.) The County's LPP was certified in 1982, and has been amended several times since then. (See Pub. Res. Code, [Sections]</p>	<p>See Ch. 13 Land Use, at 13.2.3.2 regarding the Suisun Marsh Local Protection Program. Also see Master Response 11, which discusses local jurisdiction plans and policies.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>29415 &amp; 29418.) Unless exempted by statute, all public and private development within the unincorporated area of Marsh is required to be consistent with the County's certified LPP. (See Pub. Res. Code, [Sections] 29501, 29503 &amp; 29505.) As a result, consistency with the SMPP is no longer sufficient to support approval of development; instead, consistency with the certified LPP must be found.</p> <p>The current version of the certified LPP includes provisions requiring that "every effort must be made to preserve natural channels and drainage ways" and allowing modification of existing watercourses "only where no reasonable alternative is available." (See SPRAWLDEF v. San Francisco Bay Conservation &amp; Development Com. (2014) 226 Cal.App.4th 905 [petition for review pending].) As a result, the DEIR/EIS must identify whether the BDCP project proposes any modifications to existing watercourses within the portion of the Marsh subject to the County's LPP, and if so, evaluate whether there are any reasonable alternatives available. Solano County is currently considering amendments to these provisions, but any amendments to the LPP will not become effective until certified by the Bay Conservation and Development Commission. (See Pub. Res. Code, [Section] 29419.)</p> <p>Either Solano County or the Bay Conservation and Development Commission, or both, are responsible for determining whether proposed development within the unincorporated area of the Marsh is consistent with the LPP. If the DEIR/EIS provided an adequate evaluation of the BDCP project's consistency with the LPP, the County and the Commission might be entitled to rely on the DEIR/EIS when approving marsh development permits for activities included within the BDCP project. (See CEQA Guidelines, [Section] 15096.) However, because the DEIR/EIS does not evaluate whether any part of the BDCP project is consistent with the LPP, the County and the Commission will be left to the remedies described in section 15096, subdivision (e), of the CEQA Guidelines.</p>	
1612	61	<p>[ATT1:] In May 2014, CDFW issued its Ecosystem Restoration Program Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta ("ERP"). In July 2014, NOAA released its Recovery Plan for salmon and steelhead that recommends recovery activities for the Delta and other areas. While these documents were released after release of the DEIR/EIS, consistency between the activities proposed as part of the BDCP project and those proposed in these two latter documents is critical for the successful implementation of all three plans. CDFW's ERP and NOAA's Recovery Plan potentially constitute significant new information that requires recirculation of the DEIR/EIS. (CEQA Guidelines, [Section] 15088.5.) If the lead agencies decide not to revise and recirculate their DEIR/EIS due to the ERP and Recovery Plan, they must explain why the plans do not constitute significant new information.</p>	<p>A recirculated draft EIR/EIS was released for official public comment period on July 10th, 2015 with 3 new sub-alternatives and updated analyses. DWR has coordinated with NOAA and CFFW in developing the new alternatives and have considered relevant research and reports in the methodologies and analyses included in the RDEIR/SDEIS and ESA/CESA documents.</p>
1612	62	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Water Supply (Chapter 5) is Inadequate</p> <p>The DEIR/EIS states, "the [CALSIM] model will still sometimes show in very dry years dead pool conditions that appear to prevent Reclamation and DWR from meeting their contractual obligations to these contractors. Such model results are anomalies that reflect the inability of the model to make real-time policy decisions under extreme circumstances, as the actual (human) operators must do. Thus, any reductions simulated due to reservoir storage conditions being near dead pool for these types of delivery should only be considered an indicator of stressed water supply conditions under that Alternative, and should not necessarily be understood to reflect literally what would occur in the future. In actual future operations, as has always been the case in the past, the project operators</p>	<p>The "dead pool" conditions presented in the CALSIM II model results in the EIR/EIS are developed from calculated monthly average reservoir volumes. Because the model only calculates and reports SWP and CVP water operations at an average monthly basis, the model cannot simulate changes that occur on a weekly basis by water users and SWP and CVP operations. In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. Instead the model includes average operating criteria for all dry periods, and does not reflect specific changes. The dead pool conditions occur in the No Action Alternative as compared to the Existing Conditions because the model includes changes in precipitation without making changes in water diversion patterns. The EIR/EIS analysis considers changes between the frequency of dead pool conditions under the alternatives and the No Action Alternative (both with the same climate change assumptions) to determine if the changes are adverse or beneficial. The results are presented in the tables with end-of-month storage for the SWP and CVP reservoirs in Appendix</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>would work in real time to satisfy legal and contractual obligations given then current conditions and hydrologic constraints." (DEIR/EIS, p. 5-46 [emphasis added].)</p> <p>This discussion of water supply impacts is inadequate because it fails to model project operations under the BDCP to reflect real world adjustments by the CVP and SWP project operators to dry year conditions and increased demands. MBK Engineers recent review of the BDCP CALSIM modeling also found that the reservoir and export operational rules were not properly adapted to reflect how project operators would adjust to climate change, increase flow requirements, and adding new intakes in the North Delta. (Presentation by Walter Bourez on BDCP Operations Modeling Review to Delta Independent Science Board on January 17, 2014). MBK Engineers' analysis suggests that the BDCP modeling underestimates North Delta intake exports and total SWP and CVP exports.</p> <p>The BDCP modeling of exports with the BDCP alternatives must be revised to include realistic responses by SWP and CVP project operators to the new facilities and fish protection measures. It is especially important to develop new reservoir rule curves when simulating BDCP operations based on the SWRCB flow criteria (Alternative 8). Simulating these increase Delta outflow and Rio Vista flow requirements using existing reservoir rule curves that were tuned to existing facilities and sea level conditions does not provide useful information.</p>	<p>5A, Section C, Modeling Results, in the Draft EIR/EIS.</p> <p>It is recognized that flood control operations in the SWP and CVP reservoirs and other reservoirs probably will be modified in the future in response to climate change and other water resources operations. However, it would be speculative to develop changes in flood operations under the No Action Alternative or Cumulative Impact Analysis; and these changes are not consistent with the Project Objectives and Purpose and Need statement for the action alternatives. Future changes in reservoir operations would require separate engineering environmental analyses under CEQA and NEPA, and revised reservoir operations permits which could affect SWP and CVP operations. Please see Master Response 30.</p>
1612	63	<p>[ATT1:] The DEIR/EIS redefines the SWRCB export/inflow ratio limits in D-1641 for the preferred project Scenarios H1 and H3. In these scenarios, the export/inflow limits are only applied at the South Delta intakes, and the north Delta exports are not included in the Delta inflow or the Delta exports computation. (DEIR/EIS, p. 5A-B40.) Conversely, in the Alternative 4 H2 and H4 scenarios, this requirement is applied to the total Delta exports by including the North Delta diversion in the Delta inflow and the Delta exports computation used to determine this requirement.</p> <p>The DEIR/EIS must be revised to disclose the additional adverse impacts of this relaxation of the SWRCB's D-1641 export/inflow standards. In addition, the DEIR/EIS must provide sufficient information to allow the SWRCB to make decisions regarding such a modification of the export/inflow standard and adding new points of diversion for the SWP and CVP.</p>	<p>The Export/Inflow ratios were included in the alternatives in the EIR/EIS in a range of implementation options, as described in Chapter 3, Description of Alternatives. Two of those options are discussed in this comment. The changes in environmental resources under each alternative are presented in the EIR/EIS (Chapters 5 through 28).</p>
1612	64	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Surface Water and Recommended Mitigations (Chapter 6) is Inadequate</p> <p>At page 6-100 of the DEIR/EIS, the discussion of changes in reverse flow conditions for Old and Middle River (Impact SW-3) focuses on changes in Old and Middle River with the BDCP project operational relative to both Existing Conditions (without Fall X2) and the No Project Alternative, and refers to Figure 6-23. However, the data in Figure 6-23 are the long- term averages of 82 years of data, and these long-term averages mask adverse impacts of OMR flows in individual years.</p> <p>The discussion of Impact SW-3 in the DEIR/EIS also fails to disclose whether the reverse flows were large and negative in the baseline case and are therefore only slightly improved with the BDCP project. Because the new North Delta intakes and isolated conveyance facility are being presented as a conservation measure that reduces the adverse impacts of exports from the South Delta, the BDCP should eliminate any reverse flows lower (more negative) that cause adverse impacts. This amount of negative flow may be approximately -4,000 cfs,</p>	<p>The EIR/EIS presents a range of alternatives in the action alternatives as compared to the Existing Conditions and the No Action Alternative, including a range of SWP and CVP operations that effect reverse flows (measured as Old and Middle River [OMR] flows). The specific changes in monthly OMR flows are presented in Tables C-9-1 through C-9-25 in Appendix 5A, Section C, Modeling Results. The results indicate that under Alternatives 1 through 5, OMR flows become more negative in April and May and sometimes December as compared to the Existing Conditions. Under Alternative 7, OMR flows become more negative in July and August as compared to the Existing Conditions. Under Alternative 8, OMR flows are more positive in most months; and under Alternative 9, OMR flows are more negative in most months as compared to the Existing Conditions.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>but a specific amount must be identified in the DEIR/EIS.</p> <p>The simulated BDCP reverse flow data (Old and Middle River) for each year (1922-2003) of certain months is presented in "BDCP Water Quality Impacts in Barker Slough and Suisun Marsh Ares," attached to these comments of Solano County as Attachment B. These data show that reverse flows in July, August, and September would continue to be strongly negative with the BDCP. The OMR values in July and August would become even more negative in some years with BDCP.</p> <p>The BDCP project is being proposed as a conservation measure because it may reduce exports from the South Delta. This amounts to an explicit admission by the BDCP proponents that the current level of South Delta exports adversely impacts fish species. If the proposed project is going to increase reverse flows, then the adverse impacts of the South Delta exports will increase rather than decrease, and recovery of the key fish species and other resident Delta species will not occur.</p> <p>As proposed, the BDCP project fails to improve conditions in the South Delta and fails to improve the Delta ecosystem. Alternatives to the proposed project that significantly decrease reverse flows (increase OMR) in all months must be developed and analyzed in the DEIR/EIS.</p>	
1612	65	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Water Quality and Recommended Mitigations (Chapter 8) is Inadequate</p> <p>The BDCP project proposes to make numerous major changes to the current Delta export system and the rules under which that system is operated. The rule changes include eliminating existing U.S. Army Corps of Engineers limits on inflows to Clifton Court and relaxing the Emmatton water quality standard. The DEIR/EIS is inadequate because it fails to analyze and disclose the separate impacts of each of the following elements of the BDCP project:</p> <ul style="list-style-type: none"> <li>-Project conveyance and operations (CM1)</li> <li>-Habitat restoration</li> <li>-Climate change (change in runoff hydrology and sea level rise)</li> <li>-Moving the Emmatton compliance location (DEIR/EIS, p. 3-188)</li> <li>-Adding a permanent operable Head of Old River Barrier (DEIR/EIS, p. 3-203)</li> <li>-Elimination of the US Army Corps of Engineers restrictions on inflow to Clifton Court (DEIR/EIS, p. 3-32)</li> <li>-Additional storage that is needed for a sustainable Delta solution.</li> </ul> <p>Each of these actions are likely to have significant adverse impacts on key fish species, Delta water quality, the water supply for senior water right holders, and water supply reliability in the export areas. These actions will require decisions by different regulatory agencies, including as the SWRCB, U.S. Army Corps of Engineers, the fish agencies, and local agencies. The DEIR/EIS will not be able to be used by these other regulatory entities without analyses</p>	<p>Please refer to response to comment 1612-44 above regarding the USACE permit. Regarding evaluating the identified project components individually, the EIR/EIS has provided a comprehensive analysis of all these components combined. For water resource based analyses the project components are assumed as part of the CALSIM II model. For land based impacts all of these project component footprint effects are capture in a Geographic Information System (GIS) analysis performed to capture the effects of all of the project components. Please also refer to Master Response 8, regarding lead agencies analyzing the project as whole.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>of the individual impacts of each action.</p> <p>Lumping all these elements together also masks individual impacts and fails to disclose to the public and the agency decision makers the environmental impacts of each element. DWR has previously released three different EIRs regarding its proposal to implement a permanent operable Head of Old River barrier. The 1990 and 1996 drafts were revised, and a new draft was released in 2005, followed by a final EIS/EIR in December 2006. The project still has not been permitted. If this barrier project cannot be justified environmentally on its own merits, it should not be slipped in as part of a larger, even more damaging, project.</p>	
1612	66	<p>[ATT1:] The analysis of the proposed BDCP project includes new intakes and conveyance facilities, new habitat restoration, changes in runoff and tidal elevations due to climate change, moving the compliance point for the Emmaton water quality standard, adding an operable Head of Old River barrier, and eliminating existing restrictions on inflow to Clifton Court Forebay. The proposed project is then compared with an existing baseline case, which contains none of these elements, and a No Project Alternative, which also contains none of these elements except climate change. This approach masks the impacts of each individual element and fails to disclose to regulatory agencies and the public the adverse impacts of each element.</p>	<p>Please refer to response to comment 1612-65, above.</p>
1612	67	<p>[ATT1:] The DEIR/EIS is also inadequate because it fails to analyze any alternatives that include state of the art fish screens for Clifton Court and the Jones Pumping Plant. DWR is proposing screening other, much smaller unscreened diversions (CM21), yet has not evaluated the potential benefits to key fish species of a new screened intake on Victoria Canal or low flow screened intakes.</p>	<p>DWR and Reclamation are required to improve fish collection efficiency at the existing south Delta salvage facilities, as part of facility improvements required by the National Marine Fisheries Service 2009 biological opinion on the SWP/CVP. For example, in 2014 Reclamation replaced the secondary lower system with a traveling screen system. These screens provide protection by guiding fish into the holding tanks while catching debris on pegs and transporting debris to a collection system at the work surface.</p> <p>The technology required at the proposed north Delta intakes and the existing south Delta export facilities differ fundamentally. The north Delta intakes would be located on the side of the river channel and so would be designed to comply with CDFW, NMFS, and USFWS fish screening criteria (Appendix 5B Section 3.B.3.3). The south Delta export facilities are located on dead-end channels and require active collection and salvage of fishes.</p> <p>Screening the intakes at Clifton Court Forebay was analyzed during the water conveyance alternative development process and is described in the 2013 Public Draft EIR/EIS, Appendix 3A. This alternative was eliminated from further evaluation because initial results of recent studies, including information included in the recent NMFS biological opinions, supported a phased approach that would emphasize improvements to operations of fish handling facilities and reduced predator potential within Clifton Court Forebay prior to further analysis of installation of fish screens. Nevertheless, DWR and Reclamation will continue investigating strategies to increase fish salvage efficiency, reduce pre-screen losses, and improve screening efficiencies, consistent with the 2009 biological opinion of the SWP/CVP.</p> <p>Please see Master Response 4 for discussion of the scope of the proposed project and alternatives that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project.</p>
1612	68	<p>[ATT1:] The January 2014 California Water Action Plan and letters and reports from the Delta Vision Foundation, Delta Stewardship Council, and others recommend that new storage is needed to be able to meet both coequal goals under the 2009 Delta Reform Act. However, the BDCP fails to propose new storage and the DEIR/EIS fail to analyze the environmental impacts of new storage. This represents piecemealing of the "whole of the action" needed to achieve the coequal goals, which in turn results in a constricted</p>	<p>While water storage is a critically important tool for managing California's water resources, it is not a topic that must be addressed in the EIR/EIS for the proposed project. This is because the proposed project does not, and need not, propose storage as a project component. Although the physical facilities contemplated by the proposed project, once up and running, would be part of an overall statewide water system of which new storage could someday also be a part, the proposed project is a stand-alone project for purposes of CEQA and NEPA, just as future storage projects would be. Appendix 1B, Water Storage, of EIR/EIS, describes</p>

DEIRS Ltr#	Cmt#	Comment	Response
		discussion of true project impacts associated with likely future operations of the BDCP project.	the potential for additional water storage.  Please see Master Response 4 regarding the development of alternatives. Please see Master Response 6 for information on Demand Management. Please see Master Response 37 regarding water storage. For more information regarding how the lead agencies analyzed the project as a whole, please see Master Response 8.  For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31.
1612	69	[ATT1:] The DEIR/EIS's analysis of environmental impacts of the BDCP must be revised to include separate modeling simulations and analyses for: (a) just new conveyance, (b) just new habitat, and (c) just new storage, so that the separate impacts of each action is fully disclosed and mitigated.	Please refer to response to comment 1612-65 regarding evaluating components separately. For more information regarding project and program level analysis please see Master Response 2. The potential effect of storage combined with other cumulative project is addressed in the Cumulative Impacts section of appropriate EIR/EIS resource chapters.
1612	70	[ATT1:] The analysis of water quality impacts in the DEIR/EIS is also flawed because the decision to disaggregate only some of the monthly CALSIM II flow output into daily flows prior to input into the DSM2 model. (DEIR/EIS pp. 5A-A15 & 5A-A40). The Sacramento inflows are input as daily data but the exports are still monthly-averages, which implies an equal export quantity for each day of a given month. In months where a storm occurs late in the month, this disaggregation process can create unrealistic negative daily flows at the beginning of the month and cause unrealistically large spikes in salinity that often exceed D-6141 standards. The BDCP water quality modeling must be revised using either all daily data as inputs, which is the preferable method, or all monthly data.  The daily specific conductance (EC) data for the No Project Alternative in early November 1981 at Jersey Point and Rock Slough is a good example of this flaw, where the EC at Rock Slough spikes up to 1,800 µS/cm, equivalent to a chloride concentration of 460 mg/L. This is well in excess of the SWRCB 250 mg/L standard. These errors in the predictive calculations render any comparisons between the baseline and the proposed project or to the project alternatives invalid. This also distorts the potential impacts on water quality, Delta water users, and fish.	The daily disaggregation methodology is consistent between the Existing Conditions and the No Action Alternative. A sensitivity analysis comparing different method for daily disaggregation was completed during preparation of the EIR/EIS and is presented in the BDCP/California Water Fix Partially Recirculated Draft EIR/Supplemental Draft EIS, Appendix A, Chapter 8, Appendix H, Attachment I.
1612	71	[ATT1:] In the information presented on pages 8-8 and 8-9 of the DEIR/EIS regarding the Sacramento River Watershed, it should be noted that the original SWRCB water year classifications for the Sacramento Valley were defined in SWRCB Water Rights Decision 1641 such that 30% of historical water years to that time were wet, 20% were above normal, 20% were below normal, 15% were dry, and 15% were critically dry. Climate change, however, will likely change those percentages in future years. The water year types for the San Joaquin Valley were based on the same percentages. (DEIR/EIS, p. 8-10.)	Climate change effects on water year types were accounted for in interpreting modeling results relative to water quality objectives based on water year type (e.g. Delta EC objectives).
1612	72	[ATT1:] The DEIR/EIS should also disclose that the historical period use for the CALSIM II modeling (1922-2003) is consistent with the longer historical record reported by DWR in their Water Supply Index report (1906-2013). However, the shorter historical period (1976-1991) used by the DSM2 water quality modeling is much drier than the 1906 to 2013 historical record. A comparison of the cumulative probabilities for the full historical record (1906-2013), CALSIM modeling (1922-2003) and water quality modeling (1976- 1991) is given in the following graph. More than 50% of the years from 1976-1991 are either critical or dry, compared to only 35% for the full historical record.  Appendix 5A of the DEIR/EIS includes an August 2013 technical memorandum from DWR staff titled: "CalSim II and DSM2 Modeling for BDCP (16-years versus 82-years)." A bullet in	The Draft EIR/EIS used the DSM2 planning simulations performed over the 16 year period (WY 1976 – 1991) which resulted in a more conservative result (as indicated in this comment) related to water quality as compared to simulations performed over the 82 year period (WY 1922 – 2003).

DEIRS Ltr#	Cmt#	Comment	Response
		<p>this memorandum at page 5A-D208 states, "The distribution of year types in the 16-year period is similar to the distribution in the 82-year period (i.e., a wide range of hydrological conditions is reflected in both data sets)." It is clear from the probability distributions plotted above that the distribution of year types and Sacramento 40-30-30 indices are not similar. The number of years for the water quality modeling (16) is only 20% of the number of years used for the reservoir, flow and export operations modeling (82). About 30% of the years in the water quality modeling are critical years, but only about 15% are critical for the reservoir and operation modeling.</p> <p>The DEIR/EIS is inadequate because it fails to dedicate the same level of detail to analyzing the potential adverse water quality impacts to users of water in and south of the Delta as it does to analyzing water supply impacts. The 16-year simulation period is insufficient to fully disclose the full impacts of the BDCP project on Delta water quality.</p>	
1612	73	ATT1: ATT1: Figure showing Sacramento Basin Water Year Types	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.
1612	74	[ATT1:] The DEIR/EIS is also inadequate because it only discloses the drought impacts for a single drought period, water years 1987-1991 (p. 8-135), and fails to disclose the impacts on water quality during other drought periods such as 1928-1934 and 1976-1977. In fact the drought that started in 1987 did not end until 1993 (an above normal year) and 1993 was followed by another critical water year. The period 1987-1991 does not even represent the full extent of the 1987-1992 or 1987-1994 drought. Given the significance and cost of the proposed project, it is important that water quality be evaluated over a much longer period, preferably for at least 82 and extending through 2013 rather than just through 2003. This will provide the necessary information regarding the resilience of the proposed project over a series of drought conditions, not just part of one drought period.	The methodology for the water quality analysis related to modeling using a 16 year period is considered adequate for purposes of CEQA and NEPA analysis because this representative period includes drought years that fairly represents conditions in below normal water years. Potential water quality effects for a range of water year types are therefore evaluated in these analyses. Please also refer to Master Response 14 for issues in the water quality analyses.
1612	75	<p>[ATT1:] Although the maximum intrusion and variability of chloride have been reduced since 1921 because of CVP and SWP reservoir operations (Figure 8-4 and Figure 8-5), salinity in the Delta during the fall has increased in since 1994. This increase is due primarily to a shift in export operations away from the spring, to protect fish, to summer and fall. If Fall X2 is indeed a factor affecting fish abundance in the Delta, then this degradation of Delta water quality in the fall (increased Fall X2) may be a contributing factor to the Pelagic Organism Decline. Construction of the major storage reservoirs and implementation of Delta water management facilities and operations may have improved water quality from 1921 through the 1980s, but export operations have degraded water quality in the Delta since the mid-1990s.</p> <p>Section 8.2.1.4 of the DEIR/EIS must be revised to fully disclose the effects of project operations on Delta water quality in the last 20 to 30 years, and the subsequent adverse impacts on fish species. The DEIR/EIS, as well as any terms and conditions regarding operation of the BDCP facilities, must also take into account the fact that implementation of new Spring X2 standards in 1995 redirected impacts to fish in the fall. Similarly, additional Fall X2 and spring outflow requirements will redirect the effects of exports and reduced flows to July and August. Although the densities of key covered species in the South Delta are currently not high during July and August, that will likely change and other resident fish species could begin to decline if the SWP and CVP increase exports in July and August to meet demand. The DEIR/EIS must fully analyze and disclose future impacts of not setting</p>	<p>Section 8.1.1.4 of Chapter 8, Water Quality of the Final EIR/S (labeled Section 8.2.1.4 in the Draft EIR/S), is in the Environmental Setting/Affected Environment, and provides a simple overview of factors affecting water quality in the study area. This section is to describe current conditions; a discussion of historical changes in the watershed is not within the scope of this section of the chapter. However, a discussion of compliance with D-1641 EC objectives added to Section 8.1.3.7, Salinity and Electrical Conductivity, in response to comments to provide more information about historical compliance with these objectives.</p> <p>To the extent that outflow/X2 has been shown to be related to fish abundance or habitat, the EIR/EIS assesses those effects. Additionally, the SWRCB is currently in the process of updating the WQCP for the Bay-Delta, which is ultimately the document that will govern flows and water quality in the Delta to protect fish.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		protective fish terms and conditions for July and August.	
1612	76	[ATT1:] As mentioned at page 8-129 of the DEIR/EIS, changes in Delta water quality can also be attributable to non-construction related actions associated with implementation of conservation measures CM2 through CM22. The DEIR/EIS is inadequate because it fails to assess the effects of implementing CM2 through CM22 quantitatively. (See DEIR/EIS, p. 8-137.) Even though the other conservation measures are only analyzed at a programmatic level, the adverse impacts of habitat restoration and other measures will be real and, like the significant adverse water quality impacts due to operation of CM1 and construction activities--impacts such as total and dissolved organic carbon, as well as methyl mercury--must be identified, quantified, and mitigated.	Impacts due to implementation of CM2 through CM22 were identified and mitigation identified for significant impacts, including organic carbon and mercury. Please also see Master Response 14.
1612	77	<p>[ATT1:] The DEIR/EIS, at page 8-157, states as follows: "Understanding some basic input assumptions for DSM2 is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives. While DSM2 simulates EC on a 15-minute time-step, the Delta inflow and agricultural return flow inputs, and Delta operations (e.g., Delta Cross Channel gate operations) inputs to DSM2 are on a monthly time-step. Because the DSM2 inputs are on a monthly time- step, the assessment of compliance with sub-monthly objectives (e.g., 14-day running averages) is conducted in terms of assessing the overall direction and degree to which Delta EC would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta EC to be out of compliance a certain period of time. In other words, the model results are used in a comparative mode, not a predictive mode."</p> <p>There appears to be a major problem with the water quality simulations because the monthly CALSIM II flow output, but not the monthly export data, were disaggregated into daily flows for input to the DSM2 model. Where a storm occurs late in a month, this disaggregation process creates unrealistic negative daily Delta outflows at the beginning of the month and leads to unrealistically large spikes in salinity in the DSM2 model output. These spikes often exceed SWRCB D-1641 standards. The DEIR/EIS is inadequate because spikes in the simulations of water quality do not represent real Delta operations and the water quality data are not suitable for disclosing the potential water quality impacts of the BDCP on Delta water users and fish.</p>	The daily disaggregation methodology is consistent between the Existing Conditions and the No Action Alternative. A sensitivity analysis comparing different method for daily disaggregation was completed during preparation of the EIR/EIS and is presented in the BDCP/California Water Fix Partially Recirculated Draft EIR/Supplemental Draft EIS, Appendix A, Chapter 8, Appendix H, Attachment I.
1612	78	<p>[ATT1:] The DEIR/EIS argues that using model results in a comparative mode (i.e., subtracting a without-BDCP simulation from a with-BDCP simulation) somehow gives the correct answer even if both simulations are wrong. If the absolute salinities estimated for the baseline case and with-project scenario are inaccurate, then subtracting one from the other will result in erroneous estimates of the net impact of the BDCP. Contrary to what is stated in the DEIR/EIS, baseline or with-project cases that exceed SWRCB standards are not valid, and considering them in a comparative mode is still not valid. It is important that the DEIR/EIS modeling be accurate in a predictive mode, both to assess project impacts accurately and to ensure the water supply benefits of the BDCP project are not exaggerated by the modeling.</p> <p>Because the BDCP modeling estimates that SWRCB water quality standards are being exceeded in the baseline case, and even more so in the with-project scenarios, the salinity-outflow algorithm in CALSIM II appears to be underestimating how much Delta outflow and export reductions are needed to meet these standards. The major modeling errors in the DEIR/EIS must be corrected to ensure SWRCB standards are met as required by</p>	The EIR/EIS provided a comparison of conditions under the action alternatives as compared to the Existing Conditions and the No Action Alternative. It is recognized in the EIR/EIS, that under several of the alternatives the water quality standards will not be fully met and water quality degradation would occur as compared to the Existing Conditions, as described in Chapter 8, Water Quality, due to the limitations of mitigation measures to operate within the definition of the alternatives. Please also see Master Response 14.

DEIRS Ltr#	Cmt#	Comment	Response
		state law, that the absolute salinities in the base case are consistent with historical data, that all erroneous salinity spikes are eliminated, and all adverse water quality impacts are fully mitigated.	
1612	79	[ATT1:] The DEIR/EIS states, at page 187, that chloride concentrations at Vernalis are inversely correlated to net river flow and the dilution provided by that flow. This is correct only in general terms. The first major storms of the year typically carry with them a first flush of salt that result in higher salinities at Vernalis for a given flow. It is, therefore, very inaccurate to use a simple best-fit regression of San Joaquin River flow and salinity--in this case chloride--that does not take into account the first flush resulting from the first large storm of the winter, the differences between the irrigation and non-irrigation seasons, and other effects on salinity at Vernalis. The DEIR/EIS is inadequate because it relies on an oversimplified regression relationship between salinity and flow at Vernalis. This modeling error must be corrected.	The regression analysis conducted for chloride concentrations versus flow on the San Joaquin River was for the purpose of characterizing long-term water quality trends, consistent with the modeling time-step of CALSIM used to model San Joaquin River flows. First flush events, which are short-term and infrequent, and thus do not impart a sustained changed water quality condition, do not represent overall water quality trends relative to flow changes. Thus it is not necessary or appropriate for the regression equation to account for such events.
1612	80	[ATT1:] The DEIR/EIS's description of Alternative 1 impacts on water quality describes the adverse impacts on bromide, chloride, EC, and dissolved organic carbon as significant and unavoidable. (DEIR/EIS, pp. 8-238, 8-246, 8-255, & 8-270.) Similar findings are made for the other BDCP alternatives. Several water quality mitigation measures are proffered, including WQ-5, WQ-7, WQ-11, and WQ-18) but concern is expressed in the DEIR/EIS as to each of these mitigation measures that "the effectiveness of this mitigation measure to result in feasible measures for reducing water quality effects is uncertain." The proposed mitigation measures are therefore inadequate for eliminating adverse water quality impacts caused by the BDCP project on other users of Delta water, including key fish species.	<p>Alternative 4A would have substantially less effect on Delta water quality such that significant impacts were only identified for electrical conductivity (EC) at Emmaton and Prisoners Point, and mercury associated with the limited tidal habitat restoration that would be implemented. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. A detailed discussion of the mitigation that will be used to offset water quality impacts is included on the EIR/EIS Mitigation Monitoring and Reporting Plan. This plan provides detail on each measure including information on the action, parties responsible for implementing the mitigation measure, responsible parties, location, timing, monitoring, and reporting requirements.</p> <p>Impact WQ-5 in Section 4.3.4, Water Quality, of the RDEIR/SDEIS examines the potential effects on bromide concentrations resulting from facilities operations and maintenance of the proposed project. Increases in exceedances of the 100 µg/L assessment threshold concentration for protecting against the formation of disinfection byproducts in treated drinking water would be 6% or less at all locations assessed, which is considered to be less than substantial long-term degradation of water quality. Further, the use of seasonal intakes for municipal water supply is opportunistic in the areas affected (Antioch and Mallard Island), largely driven by acceptable water quality, and opportunity to use these intakes would remain. As such, the levels of bromide degradation that may occur under the Alternative 4A would not be of sufficient magnitude to cause substantially increased risk for adverse effects on any beneficial uses of water bodies within the affected environment. Bromide is not CWA Section 303(d) listed and thus the minor increases in long-term average bromide concentrations would not affect existing beneficial use impairment because no such use impairment currently exists for bromide.</p>
1612	81	[ATT1:] The BDCP project is being proposed by export water users that currently export water from the Delta under junior SWP water right holders, and that do not have the legal protections of the Area of Origin statutes or 1959 Delta Protection Act. Any adverse water quality impacts due to the proposed project must be avoided. The DEIR/EIS is inadequate because it fails to identify mitigation measures that would eliminate adverse water quality impacts. A number of Bay-Delta stakeholders have recommended alternatives to the BDCP project that would reduce water demands from the Delta, add new storage, increase Delta outflows, or comply with the original BDCP Planning "big gulp, little sip" principle to divert more water in wet periods and reduce diversions in dry periods. Capturing new water in new storage during wetter periods would allow some of that stored water to contribute to increased Delta flows during drier periods, as well as producing a net improvement in water supply reliability. The EIR/EIS must be revised to include analysis of additional alternatives	<p>RDEIR/SDESIS 4.3.4 (4A) describes whether concentrations of various water quality constituents are expected to increase or decrease with the project, relative to existing conditions and the No Action Alternative. To the extent that concentrations of various water quality constituents are expected to increase, 4.3.4 describes whether these increases are expected to result in impacts to beneficial uses of water in the Delta. For constituents for which adverse impacts were expected, mitigation and other commitments, such as additional evaluation and modeling and consultation with water purveyors to identify additional measures to avoid and minimize or offset these impacts, were introduced to address those impacts.</p> <p>Additionally, adding intakes in the North Delta will allow for operational flexibility that can improve natural flow in the Delta and avoid impacts to migratory fish based on real time data and operations.</p> <p>While water storage is a critically important tool for managing California's water resources, it is not a topic that must be addressed in the EIR/EIS for the proposed project. This is because the proposed project does not, and need not, propose storage as a project component. Although the physical facilities contemplated by</p>

DEIRS Ltr#	Cmt#	Comment	Response
		that improve rather than degrade water quality.	<p>the proposed project, once operational, would be part of an overall statewide water system of which new storage could someday also be a part, the proposed project is a stand-alone project for purposes of CEQA and NEPA, just as future storage projects would be. Appendix 1B, Water Storage, of the 2013 Public Draft EIR/EIS, describes the potential for additional water storage.</p> <p>Please see Master Response 4 regarding the development of alternatives. Please see Master Response 6 for information on Demand Management. Please see Master Response 37 regarding water storage.</p> <p>For more information regarding changes in delta exports please see Master Response 26.</p>
1612	82	<p>[ATT1:] The EIR/EIS acknowledges, at page 8-441, that it is uncertain whether "the available and existing salinity response and countermeasure actions of SWP and CVP facilities, municipal water purveyors, or Suisun Marsh salinity control facilities would be capable of offsetting the actual level of changes in EC that may occur from implementation of Alternative 4 [the proposed project]." Similar statements are made throughout Chapter 8 with respect to the BDCP alternatives. The DEIR/EIS therefore proposes a series of phased actions to merely identify possible actions to reduce but not eliminate EC and other salinity impacts on Delta beneficial uses. These adverse impacts would be caused by the new conveyance facilities operations under CM1 and hydrodynamic effects of tidal restoration under CM4.</p> <p>CEQA Guidelines section 15126.4, subdivision (a)(1)(B), provides that "formulation of mitigation must not be deferred to a future time." The DEIR/EIS is inadequate because a study to try and identify actions to offset adverse impacts is not an acceptable mitigation measure. The BDCP proponents must commit to not operate the isolated facility, and commit to increasing Delta outflows to eliminate adverse water quality impacts, until actions under Mitigation Measure WQ-11 are identified and fully implemented. DWR is currently studying the North of Delta Offstream Storage Project (aka Sites Reservoir) and recently released a Preliminary Administrative Draft Environmental Impact Report. This storage project could be used to release additional flow into the Delta to improve water quality and mitigate the significant adverse water quality impacts of the BDCP proposed project.</p>	<p>Mitigation measures for electrical conductivity effects of Alternatives 4A, 2D and 5A have been revised in the RDEIR/SDEIS and this Final EIR/EIS to improve actions presented in the Draft EIR/EIS mitigation measures. Mitigation measures for EC in this Final EIR/EIS would be adequate to reduce significant EC effects at several locations in the Delta. Please also see Master Response 22.</p>
1612	83	<p>[ATT1:] CEQA and NEPA require mitigation for significant adverse water quality impacts. However, pursuant to the 2009 Delta Reform Act, DWR also has a responsibility not only to avoid degrading Delta water quality, but to improve Delta water quality. DWR and Reclamation should enter into a binding agreement with key Delta stakeholders that require specific water quality goals, representing net improvements in water quality relative to historical conditions, to be met. For example, the 1968--1975 period used by U.S. EPA in 1993 to formulate new estuarine habitat standards (Spring X2) under the Clean Water Act could be used as benchmark historical conditions. Failure to achieve these legally-binding water quality goals would result in the North Delta intakes being shut down until the water quality goals are again met. The water quality goals could be expressed in terms of required numbers of days per year when the chloride concentrations at given locations must be 50, 100, 150 and 200 mg/L or better. The numbers of days per year would vary by water year type. The lower chloride values are necessary to preserve existing periods of time when there is low salinity water in the Delta for agricultural and drinking water use.</p>	<p>The project alternatives analyzed were modeled to meet D1641 water quality standards. If exceedances were identified in the modeling analysis, real time operations would adjust to meet the legal requirements for water operations with new facilities. Please also refer to response to comment 1612-82, above.</p> <p>Please refer to Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, for information on compliance of California Water Fix with the Delta Reform Act, as well as Master Response 17.</p>
1612	84	<p>[ATT1:] Following commencement of initial operations of the new intakes and conveyance system, the BDCP proponents propose to conduct additional evaluations, and to develop additional modeling, to determine whether modified operations could reduce or eliminate</p>	<p>The Final EIR/EIS proposes Alternative 4A as the preferred alternative. Alternative 4A would result in substantially lesser water quality impacts to salinity-related parameters, including EC and chloride, as compared to the preferred alternative in the Draft EIR/EIS. Alternative 4A would still have significant</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the significant adverse water quality impacts of the BDCP project. (DEIR/EIS, p. 8-441.) However, the BDCP proponents state that if sufficient operational flexibility to offset EC increases is not feasible, achieving salinity reduction would not be feasible.</p> <p>The DEIR/EIS is inadequate because it fails to use operations and water quality models that comply with SWRCB D-1641 standards, and fails to analyze alternatives that improve rather than degrade Delta water quality. The DEIR/EIS also fails to include actions and commitments to avoid or mitigate significant adverse water quality impacts. The BDCP modeling and alternatives must be revised, and legally binding and effective mitigation measures must be developed.</p>	<p>impacts to EC; however, feasible mitigation measures were introduced to reduce the identified impacts to less than significant levels to protect beneficial uses and achieve compliance with SWRCB D-1641 standards.</p>
1612	85	<p>[ATT1:] The DEIR/EIS is inadequate because it fails to disclose the significant adverse impacts of the BDCP project and alternatives on salinity (as represented by electrical conductivity, EC) in the agricultural areas of Solano County near Barker Slough. Appendix 8H of the DEIR/EIS does not present any EC data for the Barker Slough area. However, chloride data for Barker Slough are presented in Tables CL-27 and CL-28 of Appendix 8G for the proposed project (Alternative 4). The chloride data suggest the normally low salinity water presently available to farmers in the area of the North Delta west of the Sacramento River could increase in salinity as much as 73% with the proposed project. The changes in salinity in the Barker Slough region are almost entirely due to the north Delta intake operations, not sea level rise. Degradation of the water supply available to farmers in Solano County will have significant adverse impacts on crop production and the economics of this region.</p> <p>As shown in Attachment B [ATT3] to this comment letter, the BDCP project will result in significant adverse impacts to the salinity of the water supply of North Delta farmers. The DEIR/EIS must include a detailed analysis of the impacts of both water quality degradation, and conversion of Solano County farmland to habitat, and disclose and mitigate those impacts.</p>	<p>The Bay-Delta Water Quality Control Plan establishes objectives for EC at specific Delta locations for the protection of Delta agricultural users. Those locations were the basis of the assessment of EC presented in Impact WQ-11 and Appendix 8H. Note that the Final EIR/EIS proposes Alternative 4A as the preferred alternative. Alternative 4A would result in substantially lesser water quality impacts to salinity-related parameters, including EC, as compared to the preferred alternative in the Draft EIR/EIS. Alternative 4A would still have significant impacts to EC; however, feasible mitigation measures were introduced to reduce the identified impacts to less than significant levels to protect beneficial uses and achieve compliance with SWRCB D-1641 standards.</p>
1612	86	<p>[ATT1:] In Appendix 3-B, at page 3B-42, the DEIR/EIS states that the BDCP proponents commit to assisting in-Delta municipal, industrial, and agricultural water purveyors that will be subject to significant water quality effects from operation of the new intakes and conveyance system and effects on dissolved organic carbon (DOC) due to implementation of the conservation measures. This commitment focuses on the financial costs required to treat or otherwise supply water to acceptable standards. Assistance for construction and/or operation of facilities or the procurement of replacement sources is offered but is limited to reasonable, cost-effective solutions developed with input from the BDCP proponents. This "commitment" would still require thorough investigation and completion of environmental review.</p> <p>This offer to partner with the adversely impacted stakeholders, and presumably assist with financing mitigation measures, is certainly warranted given that the BDCP proponents would be the cause of the adverse water quality impacts. However, development of mitigation measures and commitment[s] to implement these measures is the responsibility of the BDCP proponents. These commitments must be clearly defined prior to certification of the BDCP EIR and issuance of a Record of Decision on the EIS, and mitigation must be in place prior to initial operation of the new intakes and conservation measures.</p>	<p>The identified commitments in Appendix 3B were included in the Draft EIR/EIS to address the potential for economic effects at Delta facilities that may have not been captured by the beneficial use analysis presented in the water quality chapter. Please note, that Alternative 4A (and 2D, and 5A) would have less than significant impacts to DOC and these measures are not anticipated to be needed for these alternatives.</p>
1612	87	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Fish and Aquatic Resources and Recommended Mitigations (Chapter 11) is Inadequate</p>	<p>As described in section 5.5 of Chapter 5 in the BDCP, the north Delta diversions proposed under the BDCP's Conservation Measure 1 have the potential to adversely affect covered fishes, particularly juvenile salmonids from the Sacramento River region, through near-field effects (e.g., impingement on the intake screens,</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The original basis for the Bay-Delta Conservation Plan was to obtain regulatory assurance for 50 years for operation of the CVP and SWP in the Delta and to improve water supply reliability for the CVP and SWP export contractors. The concept was to improve and restore the ecosystem in the Delta for key fish species.</p> <p>A major component of the BDCP's proposed ecosystem restoration is adding new export intakes in the North Delta of the Sacramento River to reduce the impacts of the South Delta export facilities on fish. This had been recommended by the fish agencies for many years. However, as revealed in the DEIR/EIS, the BDCP proponents have developed North Delta intake alternatives that harm rather than benefit key fish species. Significantly, by reducing flows in the Sacramento River below the new intakes, the BDCP's proposed North Delta intakes will reduce the survival of anadromous fish heading to and from the ocean, will change the olfactory cues used by the salmon to return to their native spawning grounds, and will increase predation. (See, e.g., BDCP pp. 3.2-8, 5.5.3-32, &amp; 5.5.3-39).</p> <p>The BDCP also assumes that reductions in entrainment at the South Delta export facilities will contribute to offsetting any entrainment and impingement at the proposed North Delta diversion facilities. (BDCP, p. 5.5.2-24). However, the BDCP is:</p> <ul style="list-style-type: none"> <li>-Proposing that the existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay be eliminated which would increase the maximum inflow from 6,680-7,180 cfs up to 10,300 cfs. (DEIR/EIS, p. 3-32.)</li> <li>-Not planning on screening the intake to the Forebay, even though DWR's November 2009 Conceptual Engineering Report -- Through-Delta Facility Conveyance Option, in Figure 7-5, contains examples of how this could feasibly be done.</li> <li>-Proposing to make reverse flows (OMR) worse at certain times of the year relative to existing conditions.</li> <li>-Proposing to continue using the South Delta for 51% of the SWP and CVP exports.</li> </ul> <p>The proposed new intake and tunnel facilities for the BDCP are likely to seriously harm key fish species and fail to contribute to restoring and sustaining the Delta ecosystem. The DEIR/EIS must be revised to include alternatives that reduce the impact of South Delta exports on threatened and endangered species and other resident fish in the Delta</p>	<p>mortality from predatory fishes aggregating at the intakes) and far-field effects (e.g., less flow leading to lower survival because of longer transit time or distance, less inundation of shallow-water bench habitats). The potential effects of the north Delta diversions constitute appreciable uncertainties in the proposed project and would be managed through implementation of a suite of real-time operations, monitoring, research actions, and adaptive management. As described further in section 3.4.1.5 of Chapter 3, the uncertainty surrounding the effects of the north Delta intakes will be informed by early implementation studies. A work plan for these early implementation studies has been completed by a BDCP Fish Facility Working Team composed of representatives from five agencies (DWR, DFW, Reclamation, USFWS, and NMFS) and consultants, and the monitoring and potential research actions noted in Chapter 3 reflect this work plan.</p> <p>As described in more detail within section 3.4.1.4.5 of Chapter 3, certain criteria governing flows in the Plan Area would be applied to proposed project operations, including north Delta bypass flows. Short-term adjustments to these flows would be managed in real time in consideration of risks to covered fishes (including juvenile salmonids) and the actions necessary to avoid adverse effects to these fishes, as well as demands on water use (e.g., storage in reservoirs).</p> <p>The effects analysis concluded that the potential adverse effects of the proposed north Delta diversions are concluded to be offset by the various beneficial effects of the conservation strategy, principally: substantial increases in floodplain, tidal, and channel margin habitat for occupancy or production of food (e.g., see Chapter 5, section 5.5.3.1.1, for discussion related to winter-run Chinook salmon), reduced entrainment at the south Delta export facilities (e.g., see Chapter 5, section 5.5.3.1.2, for discussion related to winter-run Chinook salmon), and reduced entry into the interior Delta (where survival is lower; see Chapter 5, section 5.5.3.1.3). Monitoring and adaptive management also would be undertaken to assess the effectiveness of the conservation measures in providing these and other beneficial aspects.</p> <p>For additional information regarding adaptive management and monitoring, please see Master Response 33.</p>
1612	88	<p>[ATT1:] The DEIR/EIS, at page 11-58, states, "While operation of the North Delta Diversion intake could affect winter-run Chinook salmon migration conditions, the magnitude of effects is uncertain, and additional modeling assessments are needed to verify that no adverse effects are reasonably likely to occur." The DEIR/EIS is replete with similar examples where the effect of operation of the new North Delta Diversion intakes are said to be uncertain and that additional modeling assessments are needed to verify that no adverse effects are reasonably likely to occur. If the impacts are uncertain, the proposed project should include addition measures to protect covered fish species, such as increased minimum flow requirements downstream of the new intakes and higher Delta outflows.</p> <p>The DEIR/EIS is inadequate because it fails to provide a factor of safety to protect key fish species in case the adverse effects of operation of the NDD intake are underestimated. If, in the future, it can be shown that the established minimum flow requirements and Delta outflow requirements are higher than needed to sustain fish populations, these can be</p>	<p>Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. The preferred alternative, 4A, includes the bypass flow criteria used for modeling, as well as transitional criteria, which will be implemented in real time and based on fish presence. These transitional criteria will minimize and avoid any effects that were described in the EIR/EIS. Please also refer to response to comment 1612-87, above.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>reduced through adaptive management. The DEIR/EIS must be revised to include higher minimum flow requirements that account for the acknowledged uncertainty over the adverse impacts of the NDD intake.</p>	
1612	89	<p>[ATT1:] The DEIR/EIS, at page 11-1533, makes the following four statements:</p> <p>"Near-field effects of Alternative 4 North Delta Diversion on Sacramento River steelhead related to impingement and predation associated with three new intake structures could result in negative effects on juvenile migrating steelhead, although there is high uncertainty regarding the overall effects."</p> <p>"Alternative 4 also includes an Adaptive Management Program and Real- Time Operational Decision-Making Process to evaluate and make limited adjustments intended to provide adequate migration conditions for steelhead. However, at this time, due to the absence of comparable facilities anywhere in the lower Sacramento River/Delta, the degree of mortality expected from near-field effects at the NDD remains highly uncertain."</p> <p>"Two recent studies (Newman 2003 and Perry 2010) indicate that far-field effects associated with the new intakes could cause a reduction in smolt survival in the Sacramento River downstream of the NDD intakes due to reduced flows in this area. ... The overall magnitude of each of these factors and how they might interact and/or offset each other in affecting salmonid survival through the plan area is uncertain, and remains an area of active investigation for the BDCP."</p> <p>"However, until these [modeling] efforts are completed and their results are fully analyzed, the overall cumulative effect of Alternative 4 on steelhead migration remains uncertain."</p> <p>As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for these uncertainties over the adverse impacts of the NDD intakes.</p> <p>The DEIR/EIS, at page 11-1549, states, "Alternative 4 also includes an Adaptive Management Program and Real-Time Operational Decision-Making Process to evaluate and make limited adjustments intended to provide adequate migration conditions for fall- and late fall-run Chinook. However, at this time, due to the absence of comparable facilities anywhere in the lower Sacramento River/Delta, the degree of mortality expected from near-field effects at the [North Delta Diversion] NDD remains highly uncertain." As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for this uncertainty.</p>	<p>An RDEIR/SDEIS was developed and circulated in 2015, which included 3 new Alternatives including the new preferred alternative, 4A. The evaluation of the effects of Alternative 4A are included in the RDEIR/SDEIS. Real-time monitoring and associated triggers would allow for adjustments to the North Delta Diversion operations to minimize and avoid impacts to migrating fish, with bypass flow criteria being developed in association with the resource agencies.</p>
1612	90	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Agriculture and Recommended Mitigations (Chapter 14) is Inadequate</p> <p>The DEIR/EIS has not evaluated the impacts to agriculture caused by construction activities related to CMs 2--22. Because of the large scale of these operations and the extended duration of the habitat restoration activities, they could have significant and long-lasting impacts on agricultural operations. The DEIR/EIS must evaluate these types of impacts. The proposed mitigation measures included in the DEIR/EIS only address the permanent conversion of agricultural land to habitat. They do not address the impacts to agricultural operations during the extended (10 to 12-year) construction period, which could increase costs of production and transport of commodities to market. The DEIR/EIS must recommend mitigation measures to address adverse impacts to agricultural and other business</p>	<p>The BDCP EIR/EIS provides an analysis of impacts to agricultural resources consistent with the requirements of CEQA and NEPA. See Master Response 2 for further discussion of project- vs. program-level of analysis. Effects of the BDCP will be subject to aggressive mitigation efforts. Land that is not directly affected by construction or habitat restoration should remain productive. See Master Response 18 for more information regarding agricultural impact mitigation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		operations due to construction activities related to any of the CMs.	
1612	91	[ATT1:] In evaluating the significance of the project's impacts on agriculture, the DEIR/EIS must account for the fact that costs of agricultural production could increase on an ongoing basis during the operation of the proposed project due to implementation of various CMs and related activities, which may impose new restrictions and/or requirements on farming operations in order to ensure the effectiveness of CMs. For example, if farmers and/or irrigation water purveyors are required to install and maintain fish screens on existing surface water intakes under CM-21, this would impose up-front costs and ongoing maintenance costs. Similarly, farmers may be required to change their production practices in order to prevent impacts to protected species on adjacent lands that are restored for habitat purposes. Although the concept of "safe harbor" for existing agricultural practices has been referenced in the BDCP, the County and local agricultural stakeholders have grave concerns about the enforceability of safe harbor provisions. The DEIR/EIS must provide an assessment of the potential costs to agricultural operations arising from each of the CMs and recommend appropriate and adequate mitigations to ensure that farmers are compensated for increased costs. If existing agriculture in portions of Solano County is rendered economically infeasible as a result of the BDCP project, this will be a significant change to the physical environment caused by the project.	Please see BDCP EIR/EIS Chapter 16, Socioeconomics, for analysis of effects on socio- economics in the Delta Region. Please refer to Master Response 18 regarding BDCP agricultural mitigation. Requirements of CM-21 would only occur if the BDCP or other HCP alternative were chosen.
1612	92	[ATT1:] The DEIR/EIS does not provide an assessment of how increased salinity in Delta water could affect farming operations that are not directly affected by habitat restoration. Impacts could include, but are not limited to, impacts to intakes (consolidation and other infrastructure changes), reduced yields from crops irrigated with water that has increased salinity and/or increased costs of production for farmers who are forced to pump groundwater as a substitute for surface water that has excessive salinity levels, and resultant increases in costs and regulation relative to point and non-point discharges. The DEIR/EIS must analyze the potential impact of increased salinity levels within the Delta waterways and groundwater on farming operations and identify appropriate mitigations to address such impacts.	Impact AG-2, Other Effects on Agriculture as a Result of Constructing and Operating the Proposed Water Conveyance Facility, discusses potential effects on agriculture in the study area as a result of changes in salinity.  Please also see Master Response 18.
1612	93	[ATT1:] In evaluating the significance of the project's impacts to agriculture, the DEIR/EIS should address the effect that uncertainty about the plans for habitat acquisition can have on farmers' investment decisions and the ability of property owners and businesses to obtain financing for improvements and operations. Such uncertainty has the potential to cause disinvestment and lack of maintenance, which in turn can indirectly cause a variety of environmental impacts. The DEIR/EIS should identify appropriate mitigations to address such impacts.	Blight is discussed in Impact ECON-15 under each alternative, which describes changes in community character as a result of implementing conservation measures or environmental commitments. Please also note that the new preferred alternative, 4A, does not include a habitat conservation plan or a 50-year permit.
1612	94	[ATT1:] The impacts to agriculture of habitat conversion in adjoining areas present issues of harborage of invasive species that are inadequately addressed in the CMs. Macro fauna proliferation and weed pests can spread to adjoining agriculture causing economic losses to growers. Examples of the effects of invasive species include:  -Blackbird consumption of Sunflowers  -Coyote predation on Lambs  -Beaver lodges impairing agricultural drains	Invasive species management is addressed in CM11 Natural Communities Enhancement and Management under a HCP alternative. For more information regarding agricultural impacts and associated mitigation please see Chapter 14 of this Final EIR/EIS. The originally proposed habitat restoration measures and related Conservation Measures (CMs) (i.e., CM2 through CM21) would not be included as part of the Proposed Action, except to the extent required to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and California Endangered Species Act (CESA) Section 2081(b).

DEIRS Ltr#	Cmt#	Comment	Response
		<p>-Johnsongrass and nutsedge propagules carried out to row crops.</p> <p>The introduction of new invasive species to the Delta is inadequately addressed in the DEIR/EIS. The analysis of invasive species impacts in the document over emphasizes species that impair water conveyance (Quagga and Zebra Mussels) and under emphasizes species that adversely impact agriculture and the environment. Pest Exclusion and Pest Detection programs that prevent the introduction of important invasive pests are not adequately discussed. These programs to prevent the introduction and establishment of new invasives are far more cost effective than eradication post introduction. Invasives that would negatively impact agriculture, fisheries, and the environment include the submersed aquatic weed Hydrilla, the predatory fish Alligator Gar and Northern Pike, riparian weeds such as Red Sesbania and Purple Loosestrife, and floating aquatic weeds such as exotic Spongeworts. These pests are interdicted through the collaboration of the State Border Station network and the County Agricultural Commissioners. Agricultural Commissioners also perform pest exclusion inspections on arriving nursery stock and at package receiving terminals. To adequately protect the Delta from invasive species, High Risk Exclusion funding for Agricultural Commissioners in Delta counties should be restored to full program levels.</p>	
1612	95	<p>[ATT1:] Economic impacts from Delta land conversion should consider the opportunity costs of growing high value crops historically cultivated in the Delta. In the past, Liberty Island has produced market peas, asparagus, sugar beets, and other crops that greatly out value recent production. Despite recent changes in crop being grown, the productive capacity, soils, and water availability have not changed. In addition, orchard and vine crops are emerging in importance regionally and the opportunity to plant these should be considered in the analysis.</p>	<p>Higher-value crops are discussed in Impact ECON-19. Changes in the amount, cost, or reliability of water deliveries could create socioeconomic effects in the hydrologic regions. To the extent that unreliable or insufficient water supplies currently represent obstacles to agricultural production, Alternative 4A may support more stable agricultural activities by enabling broader crop selection or by reducing risk associated with uncertain water deliveries. As a result of an increase in water supply and supply reliability, farmers may choose to leave fewer acres fallow and/or plant higher-value crops.</p>
1612	96	<p>[ATT1:] In Section 14.3.4.1 at page 14-191, the DEIR/EIS asserts that the future of agriculture in the Delta area is uncertain, citing subsidence, levee breaches, and climate change as causes. This assertion is unfounded and exaggerated; agriculture has flourished in this area for well over a hundred years, with most areas unaffected by earthquake, levee break, or flood. The more troubling aspect of this assertion and Section 14.3.4.1 as a whole, however, is its singular focus on the Delta Region and blind eye toward the export service areas, even though both areas plus the upstream watershed is acknowledge in section 1.5 to comprise the EIR/EIS Project Area. A more appropriate examination in Section 14.3.4.1 and elsewhere in Chapter 14 would be the effects of the project and cumulative effects on agriculture in all three portions of the Project Area. For example, the DEIR/EIS should address the future of agriculture in the export service areas, including cumulative effects of toxic soils, lack of adequate drainage, groundwater overdraft, subsidence, increasing drought due to climate change and other causes, and junior water rights. For example, the recent decision in North Coast Rivers Alliance v. Westlands Water Dist. (7/3/2014) xxx Cal.App.4th xxx, which discusses the existing drainage problems in the export service areas that will not be improved, and will likely be exacerbated, by the proposed project. Due to these factors, the future of agriculture in export service area is uncertain at best, even if the proposed project is built and lives up to its promises.</p>	<p>Sea level rise, seismic risk, continued land subsidence, and increased levee vulnerability in the Delta are all factors that threaten the suitability of agriculture in the Delta over the long term. Please see Appendix 3E, Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies, and Chapter 29, Climate Change.</p> <p>See Chapter 30, Growth Inducement and Other Indirect Effects, for a general discussion of potential effects on agricultural resources in the SWP/CVP Export Service Areas region. Potential effects on upstream areas are discussed in Chapter 5, Water Supply.</p> <p>For additional information regarding Greenhouse Gas Emissions and Climate Change, please see Master Response 19.</p>
1612	97	<p>[ATT1:] The DEIR/EIS's Discussion of Impacts to Recreation and Recommended Mitigations (Chapter 15) is inadequate</p> <p>In evaluating the impacts of the BDCP project to recreation, the DEIR/EIS must acknowledge</p>	<p>Impact REC-5 addresses the potential for changes in fishing operations related to operation of the conveyance facilities and concludes that impacts would be less than significant be any effects would be localized and would not affect the long-term viability of Delta fish populations.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		that Delta recreational fishing is a major activity and economic driver that is dependent upon maintaining freshwater in the Delta. The DEIR/EIS must analyze the potential effects of the proposed project and project alternatives on recreational fishing, including potential economic losses due to reductions in fishing activities. The DEIR/EIS must also include mitigations to address such impacts and evaluate the adequacy of the recommended mitigation measures.	
1612	98	[ATT1:] The DEIR/EIS must also acknowledge that hunting is a major activity and economic driver that occurs on private and public land within the Delta, and that hunting could be displaced by habitat restoration activities. The DEIR/EIS must analyze the potential effects of the proposed project and project alternatives on hunting, including potential economic losses due to reductions in hunting activities to the extent economic losses affect the significance of the effect. The DEIR/EIS must include mitigations to address all such impacts that are determined to be significant.	Impact REC 1 and 2 in this Final EIR/EIS address the potential for effects on hunting facilities and opportunities for constructing the project features. These effects are reduced by implementing mitigation measures as described in Chapter 15, Recreation.
1612	99	<p>[ATT1:] The DEIR/EIS's Discussion of Socioeconomic Impacts and Recommended Mitigations (Chapter 16) is inadequate</p> <p>Chapter 16 of the DEIR/EIS should acknowledge the many environmental and regulatory restrictions that make it very difficult for Delta communities to adapt to changes in the environment and the economy, and how this can affect the significance of impacts of the proposed project and alternatives. For example, land use and building regulations in the Delta Primary Zone will make it very difficult for businesses, residents, and property owners to make physical changes in order to minimize negative impacts or to take advantage of potential new economic opportunities that may arise. The DEIR/EIS analysis of impacts and proposed mitigation measures should be augmented and revised to acknowledge the challenges to adaptation in the Delta.</p>	<p>The comment is correct in that land use and development in some areas of the Delta, such as in the Delta Primary Zone, are governed by both local and state regulations that may limit the ability of businesses and residents to adjust to project-related effects, such as removal or relocation of homes or businesses required for project construction activities. The regulations, however, are not anticipated to affect the significance of socioeconomic effects or to make implementation of proposed mitigation substantially more difficult.</p> <p>Land use regulations that affect development in the Delta are described in Chapter 13, Section 13.2, Regulatory Setting, EIR/EIS. In particular, state regulatory authority over land use in the Delta Primary Zone is described in Section 13.2.2.1, Delta Protection Act, EIR/EIS. Under the 1992 Delta Protection Act, the Delta Protection Commission (DPC) has planning jurisdiction over portions of five counties: Contra Costa, Sacramento, San Joaquin, Solano, and Yolo. The DPC was charged with developing a comprehensive regional plan to guide land use and resource management. The resulting Land Use and Resource Management Plan for the Primary Zone of the Delta requires all local governments to submit to the DPC proposed amendments that will be incorporated into their general plans, being consistent with respect to lands located in the Primary Zone of the Delta. Land uses in the Delta Primary Zone are subject to review by DPC for consistency with the management plan. DPC does not have land use authority, but it can suspend local projects under an appeal process while it reviews them for consistency with the Delta Protection Act and the Land Use and Resource Management Plan.</p> <p>While compliance with the Land Use and Resource Management Plan for the Primary Zone of the Delta could slow or stop the development of a large or controversial development, it is unlikely to substantially slow relocations of homes, businesses, or other structures required for construction of project facilities.</p> <p>Furthermore, federal, state, and local government agencies, and others receiving federal financial assistance for public programs and projects that require the acquisition of real property, must comply with the policies and provisions set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in 1987 (42 United States Code [USC] 38 Section 4601 et seq.), and its implementing regulation, 49 Code of Federal Regulations (CFR) Part 24. Relocation advisory services, moving cost reimbursement, replacement housing, and reimbursement for related expenses and rights of appeal are provided for by the act.</p>
1612	100	[ATT1:] Table 16-6 shows generally low housing vacancy rates in Delta communities (except Isleton, which is very small). The DEIR/EIS must identify housing demand created by the proposed construction project and recommend mitigations to address impacts on housing demand from construction and O&M work and possible displacement of existing Delta residents and workforce from available housing stock due to increased competition for a	Impact ECON -2 in this Final EIR/EIS addresses the effect on housing in the 5 county region around the Plan Area and concludes that housing demand from construction workers will not increase substantially compared to regional population.

DEIRS Ltr#	Cmt#	Comment	Response
		limited supply of housing in the Delta.	
1612	101	[ATT1:] The DEIR/EIS must also include analysis of the potential disparate impacts and social justice issues related to the impacts of proposed project and alternatives on farmworkers and other lower- income households due to displacement from existing housing in the Delta. The DEIR/EIS must acknowledge that commuting long distances to workplaces in the Delta is not an option for many lower-income employees, and commuting is made difficult by lack of public transit service to worksites in rural areas.	The commenter’s opinion related to environmental justice impacts are acknowledged. The commenter’s suggestions will be considered in the project decision-making process. Displacement of residents is described in the Land Use section under each alternative in Chapter 28, Environmental Justice.
1612	102	[ATT1:] In Section 16.1.1.6, the DEIR/EIS must acknowledge the special role that Reclamation Districts provide in the Delta and their dependence on property assessments for operating revenue. The DEIR/EIS must also acknowledge the other types of local government agencies located in the Delta, such as fire protection districts, that are dependent upon receiving a share of property taxes that are collected on property within the Delta in order to maintain important public services.	The Sacramento–San Joaquin Delta Reform Act commits the entities receiving water from the State Water Project and federal Central Valley Project to mitigate for lost property tax and assessment revenue associated with land needed for the construction of new conveyance facilities (Water Code Section 85089). As described in Impact ECON-4, the Lead Agencies would make arrangements to compensate local governments for the loss of property tax or assessment revenue for land used for constructing, locating, operating, or mitigating for new Delta water conveyance facilities.
1612	103	[ATT1:] Section 16.2.3.4 makes only limited reference to relevant portions of the Solano County General Plan. This discussion needs to be augmented to acknowledge the goals and policies of the Agriculture and Economic Development chapters of the General Plan that influence socioeconomic forces by seeking to preserve agricultural lands for agricultural uses in the unincorporated area of Solano County, in particular goals AR.G-1 [support the critical role of all agricultural lands], AR.G-2 [protect agricultural lands as an irreplaceable resource], AR.G-3 [support the ability of farmers to earn sufficient income], AR.G-5 [reduce conflict between agriculture and non-agricultural uses], AR.G-6 [sustain agricultural water resources], ED.G-1 [maintain and improve the County's diversified economic base], and ED.G-6 [preserve and expand the County's agricultural base].	The Solano County General Plan goals identified by the comment have been added to Chapter 16, Section 16.2.3.4, Solano County General Plan, EIR/EIS.
1612	104	[ATT1:] Section 16.3 states that nine of the CMs are not anticipated to result in any socioeconomic impacts. The DEIR/EIS should provide an analysis of the individual CMs to justify this conclusion. The unsupported aggregate conclusion stated in the DEIR/EIS is particularly suspect, given that many of the CMs are described only conceptually or programmatically at this point, with many small and large details left to be developed over time through adaptive management or as other new information becomes available.	The conservation measures are analyzed in Impacts ECON-13 through ECON-18. For updated material please see Section 16.3 Appendix A Chapter 16 of the RDEIR/SDEIS. Please note that the preferred alternative is now Alternative 4A and no longer includes an HCP.
1612	105	[ATT1:] Section 16.3.1 assumes an 8-year construction period, which is not reasonable for a project of this complexity. At the minimum, the DEIR/EIS must acknowledge that habitat restoration construction activities are likely to extend over multiple decades and provide an analysis of the potential socio-economic impacts due to implementation activities occurring over this extended time period.	The RDEIR/SDEIS includes updated construction durations. The BDCP does provide a timeline for restoration implementation. Additionally, please note that the preferred alternative is now Alternative 4A and no longer includes an HCP or Conservation Measures.
1612	106	[ATT1:] Section 16.3.1.1 focuses only on those communities in the Statutory Delta where direct effects of the BDCP project would occur and where social and community effects would be greatest. The DEIR/EIS anticipates that social and community effects elsewhere in the larger five-county Delta region would be minor because they would be spread over a large, heavily populated area and among many communities. This obscures the impacts of the project on Solano County as a whole. The DEIR/EIS should be augmented to provide meaningful analysis of the potential impacts of the proposed project and all alternatives at the level of individual communities within the Delta, impacts on Solano County as a whole, and impacts within the larger five-county region as a whole. Further, the DEIR/EIS should be augmented to identify the cumulative impacts of proposed actions throughout the	Chapter 16 already looks at the Delta as a five-county region as a whole, as specified in Section 16.3.1.1. Unless otherwise specified, the impacts described in each alternative are described for the five-county Delta region. Where the impacts are specific to a certain town, it is called out in the text. The second paragraph under Section 16.3.1.1 is intended to describe that the impacts listed may be more concentrated near construction areas rather than as a five-county region. Additionally, the cumulative analysis already considers the five-county region as well.

DEIRS Ltr#	Cmt#	Comment	Response
		five-county region.	
1612	107	[ATT1:] The economic analysis used to support Chapter 16 in the DEIR/EIS should acknowledge the interdependencies between communities throughout the region. An element of the BDCP project that has direct impact in one location of the Delta may have indirect impacts elsewhere in the Delta, and contribute to cumulative impacts throughout the Delta. While conversion of agricultural land in Solano County will certainly have an impact on other businesses in Solano County, conversion of agricultural land outside of the County can also affect Solano County businesses. If agricultural support businesses located in other counties that serve Solano County agriculture are adversely affected by loss of agriculture anywhere in the Delta, this can affect viability of Solano County agricultural production. These types of concerns and issues should be acknowledged and analyzed in the DEIR/EIS, and appropriate mitigations should be incorporated into the proposed project.	As discussed in Section 16.3.1.2, Delta Regional Employment and Income, EIR/EIS, a regional IMPLAN economic input-output model was used to estimate the employment and income changes associated with changes in agricultural production in the five-county Delta region resulting from construction and operation of the proposed project. An IMPLAN model is designed to account for interactions within the regional economy caused by direct changes in economic activity, such as changes in agricultural production. As a result, the model's estimates of employment and income presented in the EIR/EIS account for cross-county impacts on agricultural support businesses caused by related reductions in agricultural production throughout the five-county region. These indirect effects on support businesses are included in the total employment and labor income estimates presented in the EIR/EIS under Impact ECON-1 and Impact ECON-7 for each alternative evaluated in Chapter 16, Socioeconomics, EIR/EIS. Mitigation Measure AG-1, described in Chapter 14, Agricultural Resources, Section 14.3.3.2, Impact AG-1, would be available to reduce these effects by preserving agricultural productivity and compensating off-site.  Please note that the preferred alternative is now Alternative 4A, which includes fewer impacts to agricultural acreage and thus the associated agricultural economy. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A.
1612	108	[ATT1:] Section 16.3.1.2 states that "changes in employment and income associated with potential abandonment of existing natural gas wells in the study area were not estimated using a regional IMPLAN model because employment effects are anticipated to be very small." The DEIR/EIS should provide analysis rather than assumptions regarding these impacts in order to justify conclusion presented. The analysis should recognize that while employment impacts may be relatively small, effects on income to owners may be significant.	While employment and income related to abandonment of gas wells was not calculated, the number of gas wells anticipated to be lost is calculated, and the discussion follows qualitatively in Impacts ECON-1 and ECON-13. Abandonment of natural gas wells is also addressed in Chapter 26, Mineral Resources, Section 26.3.3.2, MIN-1. When required, the Lead Agencies would provide compensation to property owners for economic losses due to implementation of the alternative. Mitigation Measure AG-1, described in Chapter 14, Agricultural Resources, Section 14.3.3.2, Impact AG-1, would be available to reduce these effects by preserving agricultural productivity and compensating off-site. Additionally, measures to reduce impacts on natural gas wells are discussed in Chapter 26, Mineral Resources, Section 26.3.3.2, Impact MIN-5.
1612	109	[ATT1:] Section 16.3.2 states that "a concentrated, substantial increase in population or new housing associated with BDCP activities would constitute an adverse socioeconomic effect." The DEIR/EIS should also acknowledge that an adverse effect could occur if there are changes in demand that are not addressed via changes in availability of housing. Mitigations measures should be developed to address such impacts.	Please refer to Impact ECON-2, which describes the peak of 4,390 workers in Year 4 of construction. Given that the region has 53,000 housing units available, an additional 4,390 workers would be able to find housing. It is anticipated that many of these new jobs would be filled from within the existing five-county labor force. However, this additional population would constitute a minor increase in the total 2020 projected regional population of 4.6 million and be distributed throughout the region. Additionally, the issue that Delta workers currently living in the Delta will be displaced is speculative as there is nothing to suggest this would occur.
1612	110	[ATT1:] Section 16.3.2.1 states in conclusory fashion that changes in population and housing are anticipated to be minor, and that effects are anticipated to be dispersed throughout the region. This obscures the potentially significant impacts within small Delta communities. What will happen if competition for employees creates shortages of workers for Delta businesses? What will happen if demand for housing related to the BDCP project results in displacement of the Delta resident labor force, which is necessary for the continued viability of Delta farming and other businesses? The DEIR/EIS must acknowledge that the proposed project may have severe, localized impacts within the Delta.	As described in Impact ECON-2, the number of workers is anticipated to peak at 4,390 workers in Year 4 of construction. Out of the five-county labor force with a total 2020 projected regional population of 4.6 million distributed throughout the region, 4,390 people is a small percentage, less than 1% of the total regional population. Therefore, it would be speculative and unlikely that the amount of new labor workers required would significantly displace labor existing businesses.
1612	111	[ATT1:] Section 16.1.1.6 does not adequately acknowledge the economic importance of recreation and tourism to the Delta economy and how existing activities would be affected by the proposed project, especially CMs 2--22. For example, the DEIR/EIS does not acknowledge the economic contributions of hunting as a recreational activity in the Delta. Habitat restoration activities can displace commercial hunting operations as well as	While Section 16.1.1.6 does not go into lengthy detail about each type of recreation occurring in the Delta, it does describe "day use/other recreationists participating in wildlife- or water-associated activities". Hunting would be included in this category of recreational activity.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>non-commercial hunting activity on land currently used for agriculture or other activities. Displacement of this activity can reduce Delta visitation and the associated spending within the local economy. The DEIR/EIS should acknowledge the importance of recreation and tourism and the potential adverse impacts from implementation of the proposed project.</p>	
1612	112	<p>[ATT1:] Section 16.3.2 states that "an adverse socioeconomic effect would result if a BDCP activity led to a reduction in local government revenue. A beneficial socioeconomic effect would result if a BDCP activity led to an increase in local government revenue." The EIR/EIS should acknowledge that an adverse socioeconomic effect would also result if a BDCP activity led to an increase in local government costs. For example, many roads in the Delta were not built to withstand the wear from heavy truck and equipment use. Use of such vehicles in conjunction with construction and maintenance related to any of the CMs could cause extraordinary wear and tear on the roads, which could create the need for increased maintenance expenditures. Similarly, if more people are attracted to the Delta region due to increased activity related to construction and maintenance of the CMs, this could result in increased calls for service to local public safety departments and agencies. The DEIR/EIS should analyze the potential for the proposed project and alternatives to create increased costs for local government agencies.</p>	<p>Please refer to Impacts TRANS-1 and TRANS-2 in Chapter 19, Transportation, which describe impacts related to increased construction vehicle trips resulting in unacceptable level of service conditions and exacerbating unacceptable pavement conditions.</p>
1612	113	<p>[ATT1:] Section 16.3.3 considers only the economic impacts of loss of agricultural production due to CM-1, and ignores the much greater impacts from conversion of agricultural land for other CMs that involve habitat restoration. As a result, the DEIR/EIS significantly understates the impacts on the local economy from the proposed project and alternatives. The DEIR/EIS must acknowledge and analyze the economic impacts due to conversion of agricultural land as a result of implementing other CMs.</p>	<p>Under CEQA [Section 15168], a program EIR (akin to a programmatic EIS under NEPA) is appropriate when a series of actions (e.g. habitat restoration projects or aquatic species conservation measures) are related geographically (e.g. the statutory Delta), in connection with the issuance of a plan (e.g. an HCP) or where individual activities will be carried out under the same authorizing statutory or regulatory authority (e.g. a section 10 permit).</p> <p>The BDCP has several characteristics that make program level analysis suitable for CMs 2-21. For example, locations for restoration and preservation actions within the conservation zones have not been specifically identified at this time. Hence, the broad environmental effects of the overall BDCP conservation strategy were evaluated at a program level of analysis. As a result, adequate detail was not available to quantify the economic effects of agricultural land retirement attributable to implementation of all the CMs. These effects are addressed, however, for each alternative in Impacts ECON -13 through 18.</p> <p>Please note, however, that for informational purposes, two studies of the regional economic effects of the CMs were conducted for DWR in 2013, including the Bay Delta Conservation Plan Statewide Economic Report and the Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report. Both studies developed various assumptions for assessing the effects of the CMs on agricultural production, resulting in differing results, although the general conclusions regarding employment effects were similar. Both studies are available for review for more information on the regional agricultural economic effects of the CMs.</p> <p>The Bay Delta Conservation Plan Statewide Economic Impact Report evaluated the agricultural land retirement effects of CMs 2-11 and 13-21. According to the employment estimates presented in the report, an estimated total of about 36,800 FTE jobs would be lost because of agricultural land retirement. (Refer to Table 5.2-1, Statewide Employment Impact Summary, Bay Delta Conservation Plan Statewide Economic Impact Report.) This reduction would equate to the loss of an average of about 735 jobs per year over the 50-year project period.</p> <p>The Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report addressed the employment effects of CMs 2-11, so its scope was more limited than the other report. According to the estimates prepared for this report, a total of about 28,200 FTE jobs would be eliminated by agricultural land retirement. (Refer to Table 1-1, Statewide Employment Impact Summary, Employment</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration.) This reduction would equate to the loss of an average of about 565 jobs per year over the 50-year project period.</p> <p>The Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report notes that when interpreting the report's results, it is important to consider that job losses from agricultural land retirement would increase over time as the amount of retired land increases as a consequence of habitat restoration.</p> <p>Please note that the preferred alternative is now Alternative 4A, which reduces the impacts to agricultural acreage and thus the associated agricultural economy.</p>
1612	114	[ATT1:] The DEIR/EIS must acknowledge and analyze the economic losses from displacement of recreational fishing and hunting activities as the direct or indirect result of implementation of the various CMs.	Conservation measures are analyzed at a programmatic level in this EIR/EIS, while the proposed project (CM1 in the Draft EIR/S and Alternative 4A in the RDEIR/SDEIS) is analyzed at a project level. Therefore, because the specific locations of many of the CMs are unknown, they were not analyzed at the same level of detail. Impacts and access to recreation are discussed in Chapter 15, Recreation.
1612	115	[ATT1:] The DEIR/EIS should provide an analysis of the effect of each CM that is specifically tailored to each individual alternative considered in the EIR. For the most part, the Chapter 16 analysis of impacts for different alternatives mentions only a few of the CMs and completely ignores most of the CMs and their potential impacts. The DEIR/EIS should be modified to correct this. Greater transparency of how conclusions were drawn that certain CMs would have no socio-economic impacts in relation to individual alternatives is necessary. Without such analysis, it is impossible for the reader to have a meaningful understanding of how various aspects of the proposed project could affect local communities.	<p>Under CEQA [Section 15168], a program EIR (akin to a programmatic EIS under NEPA) is appropriate when a series of actions (e.g. habitat restoration projects or aquatic species conservation measures) are related geographically (e.g. the statutory Delta), in connection with the issuance of a plan (e.g. an HCP) or where individual activities will be carried out under the same authorizing statutory or regulatory authority (e.g. a section 10 permit).</p> <p>The BDCP has several characteristics that make program level analysis suitable for CMs 2-21. For example, locations for restoration and preservation actions within the conservation zones have not been specifically identified at this time. Hence, the broad environmental effects of the overall BDCP conservation strategy were evaluated at a program level of analysis. As a result, adequate detail was not available to quantify the economic effects of all the CMs.</p> <p>Please note, however, that for informational purposes, two studies of the regional economic effects of the CMs were conducted for DWR in 2013, including the Bay Delta Conservation Plan Statewide Economic Report and the Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report. Both studies developed various assumptions for assessing the effects of the CMs, resulting in differing results, although the general conclusions regarding net employment effects were similar. Both studies are available for review for more information on the regional economic effects of the CMs.</p> <p>The Bay Delta Conservation Plan Statewide Economic Impact Report evaluated the effects of CMs 2-11 and 13-21. According to the employment estimates presented in the report, about 81,600 total (direct, indirect, and induced) full-time-equivalent (FTE) jobs would be generated over the 50-year project period by construction and planning, operations and maintenance, and land acquisition activities. On the other hand, an estimated total of about 36,800 jobs would be lost because of agricultural land retirement. The net increase of about 44,800 jobs over the project period would represent the net addition of about 900 jobs per year over the project period. (Refer to Table 5.2-1, Statewide Employment Impact Summary, Bay Delta Conservation Plan Statewide Economic Impact Report.)</p> <p>The Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report addressed the employment effects of CMs 2-11, so its scope was more limited than the other report. According to the estimates prepared for this report, a total of about 43,000 jobs would be generated by construction and planning, operations and maintenance, and land acquisition activities over the project period. An estimated total of 28,200 jobs would be eliminated by agricultural land retirement. The net estimated increase of 14,800 jobs over the project period would represent a net annual increase of about</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>300 jobs within the region. (Refer to Table 1-1, Statewide Employment Impact Summary, Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration.)</p> <p>The Employment Impacts for Proposed Bay Delta Water Conveyance Facility and Habitat Restoration report notes that when interpreting the report's results, it is important to consider that the project generates most jobs during the early phase of the plan, while job losses from agricultural land retirement increase over time as the amount of retired land increases as a consequence of habitat restoration. Additionally, the authors note the time pattern of job gains and losses is significant because the authors have much more confidence in the near-term job estimates than in those forecasted decades into the future.</p>
1612	116	[ATT1:] Evaluation of alternatives with regard to Impact ECON-1 should be augmented to include analysis of how the increase in job opportunities due to the proposed project may affect Delta businesses that will face increased competition for labor. It is likely that many construction workers could be paid wages that are high relative to the wages of existing Delta residents and workers, which could mean that Delta businesses would face increased competition for labor to sustain Delta businesses. For example, discussion at lines 1-8 of page 16-55 indicates that peak construction employment impacts could be as high as 12,716 FTE, which would have a significant impact within the context of the existing Delta labor pool.	As described in Impact ECON-2, the number of direct workers is anticipated to peak at 4,390 workers in Year 4 of construction. Out of the five-county labor force with a total 2020 projected regional population of 4.6 million distributed throughout the region, 4,390 people is a small percentage, less than 1% of the total regional population. Therefore, it would be speculative and unlikely that the amount of new labor workers required would significantly displace labor existing businesses.
1612	117	[ATT1:] The evaluation of alternatives in relation to ECON-2 (housing) has not provided any analysis of how the surge in employment could affect the balance of supply and demand for housing in the Delta, and has instead obscured the impacts with comparison to the population in the five-county region as a whole. The DEIR/EIS must discuss how increased housing demand due to project employment could affect Delta housing prices and availability, particularly given the constraints to production of new housing in the Delta. It is likely that many construction workers could be paid wages that are high relative to the wages of existing Delta residents and workers, which could mean that long-time residents are displaced, which would have an adverse effect on the availability of labor to sustain Delta businesses. The DEIR/EIS should be amended to acknowledge the severe local impacts that could occur under the different alternatives, due to a combination of loss of existing housing and increase in demand for housing due to an influx of workers, many of whom will prefer to live near their worksites, either on a temporary or semi-permanent basis, given the extended construction time-frame for the proposed project and the environmental and regulatory constraints on production of new housing within the Delta.	Please refer to Impact ECON-2, which describes the peak of 4,390 workers in Year 4 of construction. Given that the region has 53,000 housing units available, an additional 4,390 workers would be able to find housing. It is anticipated that many of these new jobs would be filled from within the existing five-county labor force. However, this additional population would constitute a minor increase in the total 2020 projected regional population of 4.6 million and be distributed throughout the region.
1612	118	[ATT1:] The evaluation of alternatives in relation to ECON-4 (local government fiscal impacts) has not provided any assessment of the potential increases in demand for public services and/or increases in costs to provide public services within the Delta due to the proposed project. The DEIR/EIS should evaluate potential adverse impacts due to increased public service costs from issues such, but not limited to, increased roadway maintenance costs, and increased demand for public safety services due to increased presence of human activity in the region.	Construction of the preferred alternative could create additional demand for law enforcement, fire protection, or emergency medical services for construction property protection and related to the potential for construction-related accidents associated with hazardous materials spills, contamination, or fires. In order to minimize these increased demands, DWR would implement environmental commitments (as discussed in Appendix 3B, Environmental Commitments) which would minimize the potential for construction-related accidents associated with hazardous materials spills, contamination, or fires, and reduce potential effects associated with increased service demands from new construction workers in the Plan Area. The potential for the project to result in an effect on law enforcement, fire protection, and emergency response services because of increased demand from new workers in the Plan Area during construction of the proposed water conveyance facilities is low. Additionally, construction of the project is not anticipated to result in a substantial increase in demand for public schools in the Plan Area and would not create a need for new or physically altered public schools. Construction of the project would also not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, there would be little increased public service costs due to increased demand on public

DEIRS Ltr#	Cmt#	Comment	Response
			services and utilities. Please see Chapter 20, Public Services and Utilities for additional detail.
1612	119	[ATT1:] The discussion in Section 16.3.3 suggests that Delta communities could grow and take advantage of new economic activity created by the project; however, this does not acknowledge the severe constraints on growth within the Delta, both natural and regulatory, and thus overstates any beneficial economic impacts that might otherwise occur. This section also asserts that the project would generate a beneficial effect from increased sales tax revenues for local government entities to offset losses. In order to state this conclusion, the DEIR/EIS must provide substantiation for it.	Impacts ECON-4 and 11 state that construction and operation and maintenance of the water conveyance facilities would be anticipated to result in a net increase of income and employment in the Delta region, which would also create an indirect beneficial effect through increased sales tax revenue for local government entities that rely on sales taxes. It does not state that Delta communities could grow nor does it imply growth.
1612	120	[ATT1:] Section 16.3.3 states, in several places, "When required, DWR would provide compensation to property owners for economic losses due to implementation of the alternative." (E.g., DEIR/EIS, p. 16-63, lines 26-28.) For all alternatives, the DEIR/EIS should expand upon this statement to identify or define when payments would be required. In addition, the DEIR/EIS should acknowledge that business owners and residential tenants (e.g., lessees of affected property), in addition to property owners, must be compensated for economic losses caused by the project.	When required, DWR would provide compensation to property owners for economic losses due to implementation of the proposed project. Construction of water conveyance facilities would be sequenced over approximately 10 years. Construction of individual components (e.g. intakes, tunnels) would range from one to six years. Temporary construction-related impacts include noise, visual, and transportation, among others. The construction-related impacts are disclosed in individual resource area chapters in the Environmental Impact Report/Environmental Impact Statement (EIR/EIS). All impacts would be minimized and mitigated to the degree feasible and are described under each alternative in the RDEIR/SDEIS individual resource chapters and in the Appendix 3B, Environmental Commitments, EIR/EIS. An analysis of economic impacts of the proposed project, including impacts related to agriculture, recreation, water rates, and taxes are also evaluated and described in the Bay Delta Conservation Plan Statewide Economic Impact Report ( <a href="http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_8-5-13.sflb.ashx">http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_8-5-13.sflb.ashx</a> ).
1612	121	[ATT1:] The DEIR/EIS should also acknowledge the potential need for the project proponents to acquire property needed for mitigation through eminent domain proceedings, if sufficient land required for CMs/mitigation cannot be obtained from willing sellers, and how properties to be acquired through use of eminent domain will be selected.	The type, options and feasibility of mitigation for each resource area where impacted is described in each resource chapter. Overall mitigation and environmental commitments are further detailed in Appendix 3B and Master Response 18. Please also see Master Response 22.
1612	122	[ATT1:] Impacts ECON-6 and ECON-7 consider the loss of economic activity during construction and operation of the proposed water conveyance activities. The DEIR/EIS must evaluate the loss of economic activity due to loss of agricultural production. Impact analysis relating to ECON-6 and ECON-7 must also address the issue of increased costs for agricultural production and the need for compensation to farmers due to new restrictions and/or requirements that arise as a result of implementation of the water conveyance facilities.	<p>Reductions in economic activity due to the loss of agricultural production are discussed for proposed project construction- and operations-related conditions under Impact ECON-6 and Impact ECON-12, respectively. For each alternative, acreage and production value losses are estimated and presented. Related reductions in agricultural employment and labor income are estimated and presented under Impact ECON-1 and ECON-7 for construction and operations conditions, respectively.</p> <p>In addition to addressing production value effects, Impact ECON-6 and Impact ECON-12 identify the potential for agricultural production cost increases caused by operational constraints, longer travel times, loss of investment, and salinity changes. Although no attempt was made to estimate these costs due to the lack of detailed, quantified impact information, effects are discussed in much more detail for each alternative under Impact AG-2 in Chapter 16, Agricultural Resources. As discussed for Impact AG-2, implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 will reduce the severity of these impacts by implementing activities such as siting project footprints to encourage continued agricultural production; monitoring changes in groundwater levels during construction; offsetting water supply losses attributable to construction dewatering activities; monitoring seepage effects; relocating or replacing agricultural infrastructure in support of continued agricultural activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests.</p> <p>In addition, the Lead Agencies have incorporated into the proposed project, as set forth in EIR/EIS Appendix 3B, Environmental Commitments, as separate, non-environmental commitment to address the potential</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>increased water treatment costs that could result from electrical conductivity effects on agricultural water purveyor operations. Potential options for making use of this financial commitment include funding or providing other assistance towards acquiring alternative water supplies or towards modifying existing operations when levels of electrical conductivity at a particular location reduce opportunities to operate existing water supply diversion facilities.</p> <p>Finally, when required, DWR would provide compensation to property owners for economic losses due to implementation alternatives. Please note that the preferred alternative is now Alternative 4A, which reduces the impacts to agricultural acreage and thus the associated agricultural economy.</p> <p>For additional information regarding agricultural impact mitigation, please see Master Response 18.</p>
1612	123	[ATT1:] Impact ECON-8 acknowledges that the alternatives would generate new employees for O&M of the water conveyance facilities; however, it obscures the impact of increased demand for housing that this would create in the Delta and does not consider that the Delta land use policies will make new housing construction very difficult. The DEIR/EIS should analyze the localized effects of increased housing demand and how that would affect housing and labor availability for existing Delta residents and businesses, respectively, for all of the alternatives.	As described under Impact ECON-8, the 53,000 housing units available in the five-county region would be more than sufficient to house the 190 permanent new workers. It is also anticipated that most of the operational workforce would be drawn from within the five-county region.
1612	124	[ATT1:] Impact ECON-10 considers changes to local government fiscal conditions due to O&M of the water conveyance facilities. The DEIR/EIS analysis relating to ECON-10 must be broadened to consider impacts to local government fiscal conditions resulting from implementation of CMs 2 through 22, in addition to the water conveyance facilities. As with ECON-4, the evaluation of impacts must consider not only changes in local government revenue, but changes in local government service costs, due to all CMs and for all alternatives.	Changes in local government fiscal conditions as a result of implementing CMs 2-21 are described in Impact ECON-16.
1612	125	[ATT1:] Evaluation of alternatives relative to Impact ECON-11 must consider not just effects on recreational economics during the O&M of the water conveyance facilities, but also during the ongoing O&M of all other CMs and for all alternatives.	<p>The focus of Impact ECON-11 is on the socioeconomic effects on recreation of operations and maintenance of the water conveyance facilities (CM1).</p> <p>The ongoing (post-site preparation and post-earthwork phases) effects of CM2-22 are addressed in Chapter 16, Impact ECON-17, EIR/EIS for each alternative. As discussed under this impact topic, beneficial recreational effects would generally result during later stages of the permit period as CM2-22 are implemented and environmental conditions supporting recreational activities are enhanced. These effects could improve the quality of recreational experiences, leading to increased economic activities related to recreation, particularly in areas where conservation measure implementation would create new recreational opportunities.</p>
1612	126	[ATT1:] The evaluation of alternatives relative to Impact ECON-12 is limited to permanent effects on agricultural economics from loss of land in agricultural production due to the water conveyance activities. This assessment must be expanded to evaluate the impacts on agricultural economics from any increased costs of production for remaining agricultural operations that may be caused by the water conveyance activities, such as, but not limited to, effects on Delta agriculture due to increased salinity of surface water and ground water due to water diversions. This potentially affects use of water for livestock as well as for irrigation.	<p>Please see the response to 1612-122 for a discussion the EIR/EIS impact assessment, and related mitigation, concerning agricultural effects related to potential proposed project-related salinity and groundwater changes.</p> <p>In addition to information in the EIR/EIS, salinity effects on Delta agriculture were addressed in Section 3.1.3, Salinity Impacts on Delta Agriculture, Bay Delta Conservation Plan Statewide Economic Impact Report. As discussed therein, Agricultural production in the Delta would be affected by increasing salinity levels in irrigation water where these increases are expected to occur. Based on predicted changes in agricultural land allocation under two scenarios, the report concludes that implementation of the BDCP is expected to decrease annual average revenues in the Delta by roughly \$1.86 million dollars. This loss amounts to less than one half of one percent of farm revenues in the Delta. (See Table 3.1-9, Estimated Crop Revenue</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Impacts of the BDCP, Bay Delta Conservation Plan Statewide Economic Impact Report.)</p> <p>Please note that the preferred alternative is now Alternative 4A, which reduces the impacts to agricultural acreage and thus the associated agricultural economy.</p>
1612	127	<p>[ATT1:] Impact ECON-13 is defined as effects on the Delta Region's economy and employment due to the implementation of the proposed CMs 2 through 22; however, the analysis of alternatives in relation to this impact is extremely limited. For example, for Alternative 4, the DEIR/EIS evaluates only the loss of agricultural employment related to implementation of CM-2 in a limited area in Yolo County, and only evaluates the potential losses of employment from abandonment of natural gas wells related to implementation of CMs 4, 5, and 10. This limited discussion is inadequate to provide a meaningful examination of the potential impacts of all of the other CMs not mentioned, and all of the other possible effects of the CMs throughout the affected areas. The DEIR/EIS must carefully evaluate the potential to impact the Delta Region economy due to changes that could occur throughout the region, due to any of the CMs, and consider all economic sectors instead of just the limited slice of the economy such as that examined for Alternative 4.</p>	<p>Please see response to Comment 115.</p>
1612	128	<p>[ATT1:] Analysis of alternatives relative to Impact ECON-16, changes in local government fiscal conditions as a result of implementing the proposed CMs 2 through 22 must be expanded to include not just changes in revenue, but also changes in service costs.</p>	<p>Only CM1 was analyzed at a project level in the Draft EIR/EIS, CMs are analyzed at a program level and are discussed qualitatively. Under CEQA [Section 15168], a program EIR (akin to a programmatic EIS under NEPA) is appropriate when a series of actions (e.g. habitat restoration projects or aquatic species conservation measures) are related geographically (e.g. the statutory Delta), in connection with the issuance of a plan (e.g. an HCP) or where individual activities will be carried out under the same authorizing statutory or regulatory authority (e.g. a section 10 permit).</p> <p>The BDCP has several characteristics that make program level analysis suitable for CMs 2-21. For example, locations for restoration and preservation actions within the conservation zones have not been specifically identified at this time. Hence, the broad environmental effects of the overall BDCP conservation strategy were evaluated at a program level of analysis. As a result, adequate detail was not available to quantify the economic effects of all the CMs. Please also refer to Master Response 2, regarding project versus program level analyses.</p>
1612	129	<p>[ATT1:] Analysis of alternatives in relation to Impact ECON-17 states, "Beneficial recreational effects would generally result during later states of the BDCP permit period as Conservation Measure 2-22 are implemented and environmental conditions supporting recreational activities are enhanced. These effects could improve the quality of recreational experiences, leading to increased economic activities related to recreation, particularly in areas where conservation measure implementation would create new recreational opportunities." The DEIR/EIS analysis for alternatives should clarify the beneficial effects on recreation, and specifically identify how implementation of CMs could expand and ensure public recreational access in the Delta and specifically how the Delta can accommodate increased economic activities related to recreation, acknowledging the significant constraints placed on new development within the Delta by environmental and land use regulations.</p>	<p>Conservation measures are analyzed at a programmatic level in this EIR/EIS, while the proposed project (CM1 in the Draft EIR/S and Alternative 4A in the RDEIR/SDEIS) is analyzed at a project level. Therefore, because the specific locations of many of the CMs are unknown, they were not analyzed at the same level of detail. Impacts and access to recreation are discussed in Chapter 15, Recreation.</p>
1612	130	<p>[ATT1:] Analysis of alternatives relating to Impact ECON-18, effects on agricultural economics in the Delta Region as a result of implementing the proposed CM 2 through 22, state that BDCP proponents would provide compensation to property owners for losses due to implementation of the project. This should be expanded to include business owners and residents who may be displaced or adversely affected. The analysis of the project and alternatives should also define when and how compensation will be required, to provide a</p>	<p>The comment raises several issues regarding effects on agricultural economics addressed by Impact ECON-18, including expanding compensation to businesses and residents who may be displaced; providing details concerning when and how compensation would be required; expanding the impact analysis to address the effects of all CMs on agricultural production; and considering the cumulative effects of the CMs on agricultural production, agricultural support businesses, and the viability of Delta agriculture.</p> <p>Regarding compensation for business owners and residents who may be displaced under CMs 2-21, the Lead</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>clear commitment as to circumstances when mitigation will be provided and how the appropriate compensation will be determined. The analysis of the project and all alternatives relating to ECON-18 should be expanded to provide a thorough analysis of the impacts of all CMs on agricultural economics. For example, the analysis for Alternative 4 provides only limited discussion of the impacts from CM-2. Also, in addition to direct effects, the analysis should consider the cumulative effects within the Delta from reductions in agricultural production and the larger surrounding region, recognizing that the loss of agricultural production in the Delta may lead to a loss of critical mass of agricultural activity to support key agricultural support businesses, such as suppliers and services, which could jeopardize the viability of other agricultural operations remaining in the Delta and/or outside the Delta.</p>	<p>Agencies will provide compensation to property owners for losses due to implementation of alternatives. See Chapter 13, Land Use, Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2-21, of the EIR/EIS.</p> <p>Regarding the comment that the impact analysis should be expanded to address the effects of all CMs on agricultural production, please see the response to Comment 1612-113 for a discussion of this issue.</p> <p>Regarding the comment that the EIR/EIS analysis should consider the cumulative effects of the CMs on agricultural production, agricultural support businesses, and the viability of Delta agriculture, a section on cumulative effects has been added to the EIR/EIS to consider these effects. Additionally, economic effects on agricultural support businesses were included in the modeling of employment and labor impacts of the alternatives presented in Chapter 16, Socioeconomics, EIR/EIS. Please see the response to Comment 1612-107 for additional discussion of this issue.</p> <p>Concerning effects of CMs 2-21 on the viability of Delta agriculture, the lack of detailed economic impact estimates for displacement of agricultural land under the conservation measures would make an economic viability assessment highly speculative. Additionally, Mitigation Measure AG-1, described in Chapter 14, Agricultural Resources, Section 14.3.3.2, Impact AG-1, would be available to reduce the economic effects of agricultural land conversion by preserving agricultural productivity and compensating off-site.</p> <p>Please note that the preferred alternative is now Alternative 4A, which reduces the impacts to agricultural acreage and thus the associated agricultural economy. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A.</p>
1612	131	<p>[ATT1:] The heavy reliance on Mitigation Measure AG-1, the Agricultural Land Stewardship Program, in Chapter 16 and elsewhere in the DEIR/EIS, is a major flaw of the BDCP and the DEIR/EIS. This mitigation program lacks any meaningful description of what it would do, how it would be managed, and how it would be funded, to the point that it is impossible for anyone to make a reasonable judgment as to its potential appropriateness and effectiveness in mitigating the impacts for which it is intended. The DEIR/EIS must provide a detailed and meaningful description of Mitigation Measure AG-1 and its potential effectiveness at addressing the types of impacts for which it is being proposed at mitigation. Conceptual mitigation without specific and clearly attainable performance standards is inadequate.</p>	<p>Please see Master Response 18 regarding agricultural mitigation.</p>
1612	132	<p>[ATT1:] The BDCP will have many localized effects which will be specific to individual communities within the Delta. It is simply not possible for the DEIR/EIS to precisely forecast all of the potential impacts from a project of this geographic magnitude and 50- year duration, and therefore, it will be critical that the BDCP include mechanisms for local governments and their affected stakeholders to have flexibility to make decisions about how best to mitigate unforeseen impacts. The BDCP should incorporate provisions to establish "Community Mitigation Funds" for this purpose, to give local decision-makers the ability to direct funds to address local needs. "Adaptive management" as defined in the DRA can be an appropriate mitigation technique for a variety of project impacts besides impacts to biological resources.</p>	<p>Although precisely forecasting socioeconomic impacts of BDCP over a 50-year period is not possible, mitigations and mechanisms for offsetting economic effects included in the EIR/EIS are flexible enough to address effects. For example, when required, the Lead Agencies would provide compensation to property owners for economic losses due to implementation of the proposed project. Additionally, the Sacramento–San Joaquin Delta Reform Act commits the entities receiving water from the State Water Project and federal Central Valley Project to mitigate for lost property tax and assessment revenue associated with land needed for the construction of new conveyance facilities (Water Code Section 85089).</p>
1612	133	<p>[ATT1:] The DEIR/EIS must include mitigation measures to address the impact of "temporary" housing demand that will bring thousands of workers into the Delta over a decade-long construction project. The DEIR/EIS must discuss how this housing demand will affect the limited availability of housing within the Delta communities. Mitigation measures must be recommended to address how existing Delta businesses will be affected if increased competition for the available housing supply displaces their workers from their</p>	<p>Please see response to Comment 117.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		homes. Lack of local housing availability will create a major challenge to employee recruitment and retention, and mitigation measures should address this concern. Mitigation measures should incorporate housing strategies to address temporary housing demand and prevent dislocation of existing residents and workforce supporting other Delta industry.	
1612	134	[ATT1:] The DEIR/EIS must include mitigation measures to address the impact of the project on competition for the Delta's limited labor force. Mitigation measures should address the fact that employment opportunities related to the construction of the proposed project might prove attractive to workers currently employed in existing Delta businesses, in which case, Delta businesses may face a combination of worker shortages and/or the need to increase wages in order to retain and recruit employees. Mitigation measures should address the potential adverse impacts on the economic viability of Delta businesses from this competition for labor.	As described in Impact ECON-2, the number of workers is anticipated to peak at 4,390 workers in Year 4 of construction. Out of the five-county labor force with a total 2020 projected regional population of 4.6 million distributed throughout the region, 4,390 people is a small percentage, less than 1% of the total regional population. Therefore, it would be speculative and unlikely that the amount of new labor workers required would significantly displace labor existing businesses.
1612	135	[ATT1:] The DEIR/EIS suggests that the project will make payments in lieu of taxes to compensate local governments for lost revenues as a result of habitat conversions that take property off the tax rolls. Solano County and other local agencies have grave concerns about the reliability of any such mechanism. Historically, payments in lieu of taxes promised by the State have been subject to appropriations by the State Legislature. In order for payments in lieu of taxes to be reliable mitigations for lost revenues, the BDCP must incorporate enforceable mechanisms to ensure that these payments are sufficient and are made consistently. In addition, such mitigation measures must not involve payments that are fixed in their amount based on current costs. Rather, the mitigation mechanisms must allow for increased payments, to keep pace with increases in costs over time, at least extending over the BDCP's 50-year permit period.	The Sacramento–San Joaquin Delta Reform Act commits the entities receiving water from the State Water Project and federal Central Valley Project to mitigate for lost property tax and assessment revenue associated with land needed for the construction of new conveyance facilities (Water Code Section 85089).
1612	136	[ATT1:] The DEIR/EIS asserts that local governments in the Delta will benefit from increased local sales tax revenues, due to the proposed project. In order to ensure that such benefits will be realized, a mitigation measure should be incorporated to ensure that Delta communities will be recorded as the point of sale for these projected sales transactions.	Because sales tax revenue is applied to the applicable county or city where the purchase was made, it is anticipated that that county or city would therefore benefit from the increased sales revenue.
1612	137	[ATT1:] The DEIR/EIS acknowledges that costs of agricultural production could increase for farmers not directly affected by the project, due to construction delays and other indirect impacts. (E.g., DEIR, p. 16-62). As described above, the project's impacts on the agricultural environment could be significant due to these types of increased costs. The DEIR/EIS must incorporate a mitigation mechanism to compensate farmers for these types of impacts.	As stated in the CEQA conclusion for Impact ECON-6, when required, DWR would provide compensation to property owners for economic losses due to implementation of the alternative. Please refer to Mitigation Measure AG-1 for discussion of mitigation for agricultural impacts. Please also see Master Response 18.
1612	138	[ATT1:] The DEIR/EIS asserts that Delta communities can benefit from increased public recreational access and use in the Delta. The DEIR/EIS must include mitigation measures that will ensure increased public recreational access and use in the Delta. Additional mitigation measures must also be incorporated to address the need for new or expanded business activity in the Delta to accommodate the spending of new recreational visitors within the local economy.	No additional mitigation measures are required for increased public recreational access and use in the Delta. As described in Impact REC-1, there would be no permanent displacement of existing well-established public use or private commercial recreation facility available for public access as a result of the location of the proposed water conveyance facilities for the preferred alternative, 4A. As described in Impact REC-2, to compensate for the temporary loss of access as a result of constructing the river intakes, the lead agencies will work with the California Department of Parks and Recreation to help insure the elements of CM1 would not conflict with the elements proposed in DPR's Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh (California Department of Parks and Recreation 2011d) that would enhance bicycle and foot access to the Delta. This would include the helping to fund or construct elements of the American Discovery Trail and the potential conversion of the abandoned Southern Pacific Railroad rail line that formerly connected Sacramento to Walnut Grove. The lead agencies will ensure that the constructed elements of CM1 would not result in physical barriers to implementing the Delta recreation access elements outlined in the DPR proposal. The lead agencies will also work with DPR to determine if some of the

DEIRS Ltr#	Cmt#	Comment	Response
			constructed elements of CM1 could incorporate elements of the DPR's proposal.  No additional mitigation measures are required for potential increases in private business activity generated by the spending of Delta recreationists. Any increases in spending would be considered beneficial for affected private businesses.
1612	139	[ATT1:] The DEIR/EIS must recommend measures to mitigate for impacts to water quality and water availability for non-project water intakes and groundwater supplies within the Delta. Mitigation must include compensation for increased costs of water due to the need for capital improvements, increased operating costs, and increased costs from switching from relatively lower-cost water supplies, which are compromised by the proposed project and alternatives, to higher-cost water supplies. Mitigations should also include compensation for water conservation improvements that would help Delta residents, farmers, and other businesses cope with impaired water supplies.	The EIR/EIS provided a comparison of conditions under the action alternatives as compared to the Existing Conditions and the No Action Alternative. Water quality impacts are discussed in Chapter 8 of the EIR/EIS. With respect to potential impacts to agricultural water users, the impacts to agricultural production due to temporary construction activities that could result in disruption of irrigation or drainage infrastructure, and could jeopardize agricultural production would be mitigated by implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11, including activities such as siting project footprints to encourage continued agricultural production; monitoring changes in groundwater levels during construction; monitoring seepage effects; relocating or replacing agricultural infrastructure in support of continued agricultural activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, the EIR/EIS identifies that these impacts could remain significant and unavoidable and adverse to agricultural resources. With regard to significant and unavoidable impacts, please see Master Response 10. With regards to agricultural impact mitigation, please see Master Response 18.
1612	140	[ATT1:] Generally, Chapter 16 must be revised to provide more clarity on the types of financial mitigations that will be provided for socio-economic impacts, clarify thresholds for what will trigger implementation of financial mitigations, clarify who will be eligible to receive financial mitigations and how they will be calculated, and identify what mechanisms will be established to ensure the funding for these mitigations on a secure long-term basis. Eligibility for these mitigations should not be limited to property owners, but should also include residential and business tenants within the Delta who would be affected by proposed actions.	The analysis in Chapter 16, Socioeconomics is adequate for the purposes of CEQA and NEPA. No additional mitigation measures are provided beyond those described in these responses to comments and Chapters 14, 15 and 16.
1612	141	[ATT1:] Uncertainty regarding the property to be acquired and the conditions under which land that is not acquired will continue to be farmed can have significant negative effects on the continued maintenance and investment in property within the Delta. The DEIR/EIS should incorporate mitigation measures that would help to reduce uncertainty wherever possible, and address the effects of uncertainty, to ensure that Delta property owners and business owners continue to maintain and invest in their property and establishments.	Assuming this comment refers to uncertainty in land that would be acquired, that would likely be in regards to land used for implementation of conservation measures. Conservation measures are analyzed at a programmatic level in this EIR/EIS, while the proposed project (CM1 in the Draft EIR/S and Alternative 4A in the RDEIR/SDEIS) is analyzed at a project level. Therefore, because the specific locations of many of the CMs are unknown, they were not analyzed at the same level of detail. Mitigation Measure AG-1 is provided to reduce impacts on agricultural resources. Please refer to Chapter 14, Agricultural Resources. Please also see Master Response 18.
1612	142	[ATT1:] The DEIR/EIS's Discussion of Impacts to Air Quality and Greenhouse Gases and Recommended Mitigations (Chapter 22) is Inadequate  The DEIR/EIS, in discussing Impact AQ-2 at page 22-118, states, "As shown in Table 22-39, construction emissions would exceed SMAQMD's daily NOX threshold for all years between 2014 and 2019, even with implementation of environmental commitments (see Appendix 3B, Environmental Commitments). While equipment could operate at any work area identified for this alternative, the highest level of NOX emissions in the SMAQMD is expected to occur at those sites where the duration and intensity of construction activities would be greatest. This includes all intake and intake pumping plant sites along the west bank of the Sacramento River, as well as the intermediate pumping plant site on Ryer	Given the dynamic and complex nature associated with project-generated air pollutants, the lead agencies have developed a comprehensive and aggressive mitigation strategy to address air quality and associated human health effects on both the regional and local levels.  As described in Appendix 3B, Environmental Commitments, all feasible onsite emissions reduction measures have been incorporated into the project design. These include several performance standards to ensure construction contractors utilize newer off-road and on-road engine technologies that are significantly cleaner and generate fewer emissions than older models. The project has also committed to a minimum of Tier 3 engines in all marine vessels, Tier 4 engines in all tunneling locomotives, fleet-wide average criteria pollutant emissions rates for off-road equipment greater than 50 horsepower that are equivalent to the use of a model year 2013 fleet, and on-road haul trucks meeting EPA 2007 on-road emission standards for PM10

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Island."</p> <p>The BDCP West Alignment alternatives (1C, 2C, and 4C) involve construction of conveyance facilities through Solano County, including Ryer Island. Construction of the canal will involve concrete batch plants and fuel stations that would result in air quality, noise, recreation, and other adverse impacts on the residents of the Delta. An approximately 40-acre concrete plant and 2-acre fuel station is proposed along the canal alignment approximately 1 mile south of the SR 84/SR 220 junction on Ryer Island.</p> <p>The DEIR/EIS, on page 22-252, states that construction of the water conveyance facility would involve the operation of thousands of pieces of mobile and stationary diesel- fueled construction equipment for multiple years in close proximity to sensitive receptors.</p> <p>The DERI/EIS must recommend, and the BDCP proponents must provide, mitigation for all adverse impacts including air-borne pollutants. The DEIR/EIS must be revised to recommend measures that would adequately mitigates the adverse impacts to residents of Solano County from air quality impacts caused by the construction of the intermediate pumping plant on Ryer Island and other similar facilities.</p>	<p>and NOX. Finally, construction contractors will be required to comply with all local air district recommendations and requirements for fugitive dust control, which include onsite water application, vehicle speed limits, and use of vegetative buffers. The environmental commitments will limit onsite construction emissions to the greatest extent practical, reducing both regional and local pollutants and associated human health impacts. Remaining regional emissions in the Yolo-Solano Air Quality Management District will be offset through Mitigation Measure AQ-2a/b. As described in Chapter 22, Air Quality, all offsets purchased by the project proponents must provide contemporaneous (i.e., occur in the same calendar year as the emission increases) and localized (i.e., within the Sacramento Federal Nonattainment Area) emissions benefit to the area of effect.</p> <p>The combined benefits of the project's aggressive environmental commitments and regional offset program will dramatically reduce emissions generated by Alternative 1C. With respect to localized health impacts to residents of Solano County from exposure to diesel fueled engines, the health risk assessment indicates that mitigated emissions would not expose sensitive receptors to substantial pollutant concentrations in excess of locally adopted air district thresholds. Therefore, the alternative's effect of exposure of sensitive receptors to health threats during construction would not be adverse.</p>
1612	143	<p>[ATT1:] The DEIR/EIS's Discussion of Noise Impacts and Recommended Mitigations (Chapter 23) is Inadequate</p> <p>The DEIR/EIS, in discussing Impact NOI-2 at page 23-73, states that pile driving at the intake sites for Alternative 1C and other western alignment alternatives will result in adverse ground borne vibration levels at residences nearest to the intake work areas. Construction of intakes and barge unloading facilities would also result in adverse excessive ground borne vibration levels at these nearby residential structures. The DEIR/EIS identifies two residential parcels in Solano County that would be affected. (DEIR/EIS, Table 23-38.)</p> <p>The DERI/EIS must recommend, and the BDCP proponents must provide, mitigation for these significant adverse impacts on Solano County residents. The BDCP proponents should meet with Solano County staff to discuss these impacts and develop adequate measures.</p>	<p>The disclosure of potential vibration impacts reflects a worst-case condition based on locations of pile driving activity relative to residential structures. Although vibration is expected to affect land uses including residential-zoned parcels (e.g. Table 23-24), vibration impacts would only occur where impact pile driving occurs within 70 feet of structures, and depending on drilling locations such a condition may not occur during construction of intakes. Where construction plans indicate that piles would be driven within 100 feet of a residence, Mitigation Measure NOI-2 (discussed under Alternative 1A) would be available to reduce the effect.</p>
1612	144	<p>[ATT1:] The DEIR/EIS's Discussion of Growth Inducing Impacts and Displaced Development (Chapter 30) is Inadequate</p> <p>Growth within the SWP and CVP export service areas due to additional water that would be made available to those areas through implementation of the BDCP project appears to be an objective of the project, and therefore must be evaluated as part of the project itself rather than a growth inducing impact of the project. However, to the extent growth facilitated by the availability of water supply is properly characterized as a project impact rather than objective and component of "the whole of the action," the discussion in Chapter 30 is inadequate because it addresses only the effects of growth being pulled toward the export service areas due to more water being available in those areas, and does not address the displace development effects of growth being pushed away from or precluded from occurring within the water export areas due to less water being available in those areas. The concept of displaced development was discussed by the California Supreme Court in Muzzy Ranch Co. v. Solano County Airport Land Use Commission (2007) 41 Cal.4th 372.</p>	<p>The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while protecting and restoring ecosystem conditions.</p> <p>The purpose of the proposed project is to increase operational flexibility and allow more water to be moved through the Delta when it is possible. This movement of water will not be allowed if it would violate environmental regulations or upstream water rights. Also, please refer to Master Response 26 related to changes in Delta exports. Chapter 30 does address growth effects of alternatives that have modeled exports that would be less than under existing and no action conditions.</p>
1612	145	<p>[ATT1:] The fact that the BDCP is being proposed as a combined habitat conservation plan and water diversion project rather than water just a diversion project indicates that it is no</p>	<p>The potential for water diversions under the action alternative to affect listed fish species is fully addressed in Chapter 11, Fish and Aquatic Resources including mitigation measures where they are required to reduce</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>longer possible to divert significant quantities of water for consumptive uses from the Delta or the upstream watershed without causing harm to listed species within the Delta. It is not certain whether the incidental take caused by the BDCP's proposed water diversions will be adequately minimized or mitigated through the conservation measures proposed to be implemented through the HCP/NCCP process, but it is virtually certain that if the BDCP project is approved, any further significant water diversions from the Delta or the upstream watershed would cause additional incidental take within the Delta that would be even more difficult to minimize or mitigate. To the extent the BDCP project causes less water to be available in the Delta and upstream watersheds to support growth and new consumptive uses, then growth that otherwise would have occurred within these areas will be displaced to other areas. Under these circumstances, the potential for displaced development away from the water export areas and its effects must be evaluated in the DEIR/EIS.</p>	<p>significant effects.</p> <p>The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline.</p> <p>The purpose of the proposed project is to increase operational flexibility and allow more water to be moved through the Delta when it is possible. This movement of water will not be allowed if it would violate environmental regulations or upstream water rights. Also, please refer to Master Response 26 related to changes in Delta exports. Please also refer to response to comment 1612 – 144, above.</p>
1612	146	<p>[ATT1:] The DEIR/EIS Fails to Describe and Evaluate a Reasonable Range of Project Alternatives</p> <p>Section 15126.6, subdivision (a), CEQA Guidelines provides that "the EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant impacts of the project." The DEIR/EIS does not describe an adequate range of project alternatives, in addition to the No Project Alternative, that would avoid or substantially less the significant adverse impacts of the proposed project. Instead, the DEIR/EIS describes and evaluates fourteen variation of one component of the overall BDCP project. The fourteen variations built on the North Delta intake theme are distinguished only by different isolated conveyance alignments and capacities, but have similar impacts on Delta water quality, Delta water supply, and the Delta ecosystem. The only other alternative evaluated in the DEIR/EIS is a through- Delta/separate corridors alternative (i.e., no new North Delta intakes).</p> <p>The DEIR/EIS does not analyze other alternative ways of achieving all or most of the stated project objectives, such as increasing storage upstream and/or downstream of the Delta, reducing demand through water use efficiency measures, development of new water through wastewater reuse, or upgrading to a screened intake to Clifton Court Forebay located on Victoria Canal.</p>	<p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.</p> <p>The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta.</p> <p>Please see Master Response 37 regarding why an alternative focused on creating additional storage – surface and groundwater--either in the Delta or elsewhere, was not included in the EIR/EIS. For more information regarding purpose and need please see Master Response 3.</p>
1612	147	<p>[ATT1:] One of the stated project objectives is to restore and protect the ability of the SWP and CVP system to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water. Unfortunately, the proposed BDCP project appears to interpret availability of sufficient water in terms of the availability of stored water and water year types, and not in terms of seasonal or monthly availability of water in the Delta. Consistent with the original BDCP Planning Principles, the DEIR/EIS must fully analyze alternatives that divert more water in wetter months when Delta outflows are high and reduce diversions during periods when Delta outflows are low. To meet California's water needs during drought periods and in normal years, it will be necessary to develop additional surface and groundwater storage. This will also ensure that only water that is surplus to the needs of the Delta and senior water right holders is exported. By not considering new storage, the proposed BDCP project is unable to capture surplus water in wetter months and reduce exports during drier periods. Therefore, the environmental analysis does not inform the public and cannot inform decision-makers on whether new North Delta intakes</p>	<p>The Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Section 4.1.2, Description of Alternative 4A, RDEIR/SDEIS for additional information on Proposed Project operations.</p> <p>The Proposed Project proposes to stabilize water supplies, and exports could only increase under certain circumstances in which hydrological conditions result in availability of sufficient water and ecological objectives are fully satisfied. It is projected that water deliveries from the federal and state water projects under the Proposed Project would be about the same as the average annual amount of water that would be diverted under the No Action Alternative (i.e. 2025 conditions without the Proposed Project). It is projected that Delta exports from the federal and state water projects would either remain similar or increase in wetter years and decrease in drier years under Alternative 4A as compared to exports under No Action</p>

DEIRS Ltr#	Cmt#	Comment	Response
		are the least environmentally damaging method to achieve all or most of the project objectives.	<p>Alternative (ELT) depending on the capability to divert water at the north Delta intakes during winter and spring months. The estimated changes in deliveries for 4A are provided in the RDEIR/SDEIS 4.3.1 and Appendix A Chapter 5 Water Supply. Although exports under the Proposed Project would be similar to the amount water exported in recent history, it would make the deliveries more predictable and reliable, while reducing other stressors on the ecological functions of the Delta.</p> <p>Please see Master Response 4 regarding the development of alternatives. Please see Master Response 6 for information on Demand Management. Please see Master Response 37 regarding water storage.</p>
1612	148	<p>[ATT1:] The Alternative 4 (proposed project), H1 Scenario (low outflow scenario), must be eliminated from further consideration because it relies on increasing Delta exports (from 11,280 cfs up to 15,000 cfs) during dry periods when Delta outflows are lowest. Scenario H1 fails to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of Section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses.</p>	<p>After consideration of public and agency comments regarding uncertainties in the effectiveness of habitat restoration and future effects of climate change in the Delta, among others, the lead agencies have introduced an alternative implementation strategy, including the new Proposed Project (Alternative 4A). In contrast to Alternative 4, the Proposed Project would not serve as HCP or NCCP, but would meet regulatory compliance through the ESA Section 7 process and CESA Section 2081 (b). Operations under the Proposed Project would not be guided by the Decision Tree process as described in Alternative 4, but would rather be operated to criterion bounded by scenario H3 (Fall X2) and H4 (Fall X2 and enhanced spring outflow), to ensure spring outflow is sufficient amounts to avoid negative affects to longfin smelt as a result of the Proposed Project. In addition, USFWS (2008) BiOP Fall X2 requirements will be included in the operations during September, October, and November, consistent with the USFWS (2008) BiOP RPA. Operational scenario H1 could be implemented depending on the outcomes of adaptive management and monitoring based on the uncertainties that exist today about the effect of water supply operations on listed fish species in the Delta.</p>
1612	149	<p>[ATT1:] Chapter 3 of the DEIR/EIS describes various viable project alternatives that were suggested by stakeholders but were then dismissed by the project proponents because those alternatives either did not focus solely on new North Delta intakes and conveyance, or involved some uncertainties, but no more and often less than the alternatives that were retained.</p> <p>The DEIR/EIS must be revised to describe and evaluate new alternatives based on the following principles inherent in the BDCP's stated project objectives:</p> <ul style="list-style-type: none"> <li>-Increase the restrictions on exports from South Delta to protect fish from reverse flows and entrainment.</li> <li>-Increase minimum Delta flow requirements to improve the aquatic ecosystem and improve water quality.</li> <li>-Develop facilities to capture more water when it is surplus to the needs of the Delta and San Francisco Bay, including: <ul style="list-style-type: none"> <li>--Additional diversion capacity;</li> <li>--Additional storage upstream of the Delta, south of the Delta, and possibly in the Delta; and</li> <li>--Consider intakes locations other than in the North Delta to provide physical assurances that water will be diverted only during high flow periods.</li> </ul> </li> <li>-Include other key actions to increase the reliability of California's water supply, including but not limited to:</li> </ul>	<p>Please see Master Response 4 for more information regarding alternatives to the proposed project. The alternatives included in the EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Draft EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.</p> <p>The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>--Strengthening levees;</p> <p>--Increasing water use efficiency; and</p> <p>--Developing additional local sources of water.</p> <p>This approach involves similar actions to the Portfolio Concept proposed by NRDC and others, but it places greater emphasis on meeting export water needs when surplus flow is available in the Delta, which will require investment in new storage. The original intent of the State Water Project was to export only water that is surplus to the needs of the Sacramento Valley and Delta. Project alternative that follow these principles would be consistent with the commitments made in the area of origin statutes and 1959 Delta Protection Act, and their inclusion in the DEIR/EIS is necessary in order for that document to describe and evaluate a reasonable range of alternatives that would feasibly attain most of the basic objectives of the project but would substantially avoid or lessen any of the significant impacts of the project.</p>	
1612	150	<p>[ATT1:] Specific Comments Regarding Chapter 7 of the BDCP and the Implementing Agreement</p> <p>Many of the duties of the Program Manager detailed on page 7-5 of the BDCP will be modified by provisions in the subsequently-released Implementing Agreement ("IA"). Nevertheless, consideration should be given in the BDCP and the IA to the Implementing Agency and its Program Manager reporting to the POG, which would then interfaces with the AEG. On page 7-13 of the BDCP, the limited role of the POG--the only decision-making body without the contractors--becomes apparent. We suggest there should be a strong and independent entity comprised of scientists in the governance structure, which is absent here; the Science person in the Implementation Office would not be sufficient to fulfill this role. In addition, we ask that there be a high degree of collaboration with and peer review of AEG, POG, and particularly the AMT and Real-time Operations decisions with the larger scientific community. The governance structure should be thoroughly revamped to remove inherent conflicts of interest posed by the presence of the contractors, provide the POG with direct responsibility over AMT and Operations Team functions, and establish a strong role for agencies representing the impacted Delta region.</p>	<p>A description of the Collaborative Science and Adaptive Management Program is included in Chapter 3, Description of Alternatives, of this Final EIR/EIS. The governance suggestions in this comment will be considered should the BDCP be selected during the project approval process.</p> <p>With regards to governance structure, please also see Master Response 5.</p>
1612	151	<p>[ATT1:] The Stakeholder Council, described on page 7-19 of the BDCP, is not proposed as a decision-making body; instead, the structure described in the BDCP requires the Stakeholder Council to report to the Implementation Office Program Manager, which in turn is distanced from decision bodies. Landowners, discussed on page 7-22, a limited to presenting their issues to the Program Manager and have no recourse to an actual decision body. Landowners should have the right to voice their concerns to the decision body in a public hearing process, either in the first instance or as part of an administrative appellate process.</p>	<p>The Stakeholder Council is proposed as an advisory body to the Authorized Entity Group. The comment is noted regarding the proposed decision-making authority of the Stakeholder Council. Please also see Master Response 5 regarding the adequacy of the governance structure proposed for the 2013 public draft BDCP.</p>
1612	152	<p>[ATT1:] In section 7.2.8 of the BDCP document, on page 7-26, there is a note indicating that an appropriate mechanism to involve Delta counties in Plan implementation will be identified and incorporated into the final BDCP document. The IA does not provide further information on these promised efforts. We expect that the public comment period on the BDCP and IA will be reopened once a mechanism is proposed to the Delta counties, which in turn may require recirculation of the DEIR/EIS.</p>	<p>The 2013 public draft BDCP proposes that the Delta counties be involved in BDCP implementation through the Stakeholder Council. Please see Master Response 5 regarding the adequacy of the governance structure proposed for the 2013 public draft BDCP.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1612	153	[ATT1:] Section 4.2.1 of the IA lists the various findings required of CDFW to approve the BDCP as a NCCP. Given the programmatic and experimental nature of the conservation measures, the uncertainties expressed in the BDCP document and the DEIR/EIS, and the use of the Decision Tree process to apply adaptive management, we question whether a finding of rough proportionality can be supported by the record. (See IA, section 11.1.1, p. 40.)	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5, related to the BDCP.
1612	154	[ATT1:] The second bullet point of Section 4.2.2 of the IA, at page 14, incorrectly tasks CDFW with determining that the final EIR/EIS complies with CEQA. The determination that a final EIR complies with CEQA is part of the EIR certification process. (CEQA Guidelines, [Section] 15090, subd. (a).) For a state project such as the BDCP, the state lead agency has exclusive responsibility and authority for certifying that the final EIR has been completed in compliance with CEQA. (Pub. Res. Code, [Section] 21100.) This responsibility cannot be delegated to a responsible agency such as CDFW, which is responsible only for determining whether the certified EIR is adequate for its own use. (CEQA Guidelines, [Section] 15096, subd. (e).) The DRA makes certification of the final EIR a prerequisite for incorporation of the BDCP into the DP, but does not specify which agency is responsible for certifying the EIR and explicitly provides that nothing in the DRA affects any provision of CEQA. (Water Code, [Sections] 85320, subd. (b)(2), & 85032, subd. (f).) Therefore, the authority and responsibility for certifying the final EIR continues to reside with DWR despite what is said in the IA.	This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4). For responses on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA, please see Master Response 5.
1612	155	[ATT1:] In Section 7.2, at page 16, the Fish and Wildlife Agencies are obligated to fund an unspecified portion of the Conservation Strategy. We question why these agencies should assume this obligation for two reasons: first, it obligates taxpayers statewide to pay for remediation of impacts to the Delta caused by past operations of the SWP and CVP systems rather than placing that tax burden on the contractor service areas that directly benefited from those operations; second, it represents a long-term funding commitment by public agencies that are subject to legislative oversight and an annual budget cycle. At a minimum, the IA must acknowledge that any State funding of either specific or yet-to-be-defined conservation measures will remain fully contingent on legislative appropriation throughout the full term of the NCCP.	Please refer to Master Response 5, which discussed BDCP funding. The beneficiaries would pay for the conveyance facilities and any other mitigation measures need to reduce the effects of construction and operation of the conveyance facilities. Funding for other portions of conservation measures would be from other sources.
1612	156	[ATT1:] There is an apparent conflict-of-interest in the governance structure proposed in the BDCP and the IA. The state and federal contractors, as applicants/permittees are on all but one of the decision bodies, and the IA requires their participation on the AEG. (IA, p. 15.) In addition, relative to the BDCP, the IA more clearly vests power in bodies on which the contractors sit. The IA allows Supporting Entities, which include the contractors, to use their respective authorities to implement aspects of the BDCP, further blurring the line between agency oversight and applicant/permittee interests. Conversely, the Delta counties and other local agencies with jurisdiction over impacted areas are not included in any decision bodies. We find the governance structure presented in the IA and the BDCP inadequate and rife with conflict, constituting a misuse of public trust resources. We question inclusion of contractors on any governance body. At the very least, the establishment of an agency governance buffer between the applicants and the agencies, independent agency and scientific oversight, and full inclusion of the impacted agencies in all decision bodies should be required.	Please refer to Master Response 5 for the BDCP which describes how the BDCP governance structure was developed and why the participants were chosen.
1612	157	[ATT1:] The IA provides a clearer delineation of the responsibilities of the various groups than is provided in the BDCP, and appears to shift more responsibilities onto the AMT, including acting as the decision body for Decision Tree matters such as adjusting outflows	Please refer to Master Response 5 for the BDCP which addresses some of the comments about the governance structure. The stakeholder committee is intended to provide for public and local agency input.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>during critical periods and approving changes to the Conservation Measures. The AMT is given broad powers to change or abandon Conservation Measures through adaptive management (p. 29), and move funding and/or use supplemental funding sources (pp. 30, 32). There is a clear delineation in both the BDCP and the IA between the conveyance facility (CM1), operations and the other Conservation Measures (CM 2-22) relative to authorities, level of implementation certainty, and funding. There is either restricted or no ability for public participation at meetings of these bodies, with the exception of meetings of the Stakeholder Council, which are public and to which the County is relegated one of more than 36 seats (pp. 62-64). The Stakeholder Council can advise and comment on Plan Implementation only to the Program Manager, rather than directly to any of the decision bodies.</p>	
1612	158	<p>[ATT1:] The IA appears skewed toward assurances for the contractors at the expense of the wildlife agencies, Delta water users, and the environment. Under the IA, the contractors are given limited liability and a 50-year permit while the wildlife agencies receive an inchoate conservation program with uncertain funding. Only a portion of funding is assured by the contractors for the programmatic Conservation Measures (pp. 1, 16, &amp; 36), with the wildlife agencies and the taxpayers of the State generally left to cover the balance (p. 16). Because the conservation strategy proposed in the BDCP is so broad and allows so much flexibility in implementation, it provides only weak protections as a result. Significantly, the IA provides that changes to CMs would be handled by the AMT, which is given broad discretionary authority, and do not require changes to the BDCP or to the Permits (page 36). In addition, the contractors would not be responsible for additional costs; instead, the State and its taxpayers would be required to pay for any changes other than those identified in the IA. The IA provides that failure to achieve a biological goal would not constitute non-compliance with the Plan (p. 24). Under the IA, the wildlife agencies must authorize take beyond that included in the Plan (p. 19) and take of migratory birds in addition to aquatic and terrestrial species (p. 20), but the agencies may not hold the contractors accountable for failure to achieve biological goals contained in the BDCP (p. 24). The IA requires wildlife agencies to rely heavily on highly uncertain adaptive management and decision tree processes (p. 27) but limits them to operational adjustments contained in the Plan (pp. 27, 28). The wildlife agencies cannot require additional land or financial compensation (p. 51), and cannot suspend or revoke permits should biological goals not be met (p. 24).</p>	<p>Please refer to Master Response 5 for the BDCP which addresses the governance structure and the IA. The Adaptive Management Team would be charged with adjusting operations as required to meet listed-species needs, Delta flow and water quality conditions and water supply needs.</p> <p>With regards to adaptive management and monitoring, please see Master Response 33. With regards to water quality please see Master Response 14.</p>
1612	159	<p>[ATT1:] From an operations standpoint, the IA would allow permitting for the full range of outflow scenarios, thereby allowing for the full range of North Delta diversions outlined in the BDCP (pp. 25 &amp; 26), and the conflict-ridden AMT would have jurisdiction over decision tree matters, dealing with flow during critical periods. The adaptive management program would go into effect as soon as the BDCP is approved and permits issued. Changes to Conservation Measures approved as adaptive management would not require an amendment to the BDCP or permits (page 36). It is inappropriate and a conflict for contractors to sit on the Real-time operations Team, and the non-voting status that clearly can be changed at will (p. 27) is unacceptable.</p>	<p>The decision-tree process would inform through additional research and monitoring whether operations would need to be adjusted towards the H4 scenario or the H1 scenario. Please refer to Master Response 44 for a description of the Decision tree. The commenter's opinion that it is inappropriate for contractor representatives to sit on the real-time operations team is acknowledged. Should the BDCP be approved as the proposed project these comments will be thoroughly considered as part of the conveyance facility implementation process.</p>
1612	160	<p>[ATT1:] Credit for any future mitigation of past impacts is discussed on page 41 of the IA. Given the programmatic and uncertain nature of future mitigation and the underlying questions of whether and to what extent the taxpayers will be aiding in payment of future mitigation, this section should be removed from the IA until the question of the public</p>	<p>This comment will be considered should the BDCP be chosen during the project decision-making process.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		interest versus private mitigation is resolved.	
1612	161	ATT2: Attachment A. Analysis of BDCP Project Changes to Delta Exports	This comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.
1612	162	<p>[ATT2:] One of the alleged benefits of the Bay Delta Conservation Plan (BDCP) is that it will reduce the damaging effect of exports from the south Delta. There is general agreement that the location of the south Delta export locations (Clifton Court Forebay and the Jones Pumping Plant) cause reverse flows that direct fish toward the export pumps and adversely impact fish populations.</p> <p>Another feature of the BDCP highlighted by its proponents is that it will operate according to a Big Gulp, Little Sip principle. This principle was defined in the original planning principles of the BDCP Steering Committee (BDCP March 2009 "An Overview and Update") as "Divert more water in the wetter periods and less in the drier periods."</p> <p>An inspection of the monthly Delta export data from the BDCP modeling studies suggest that neither of these alleged benefits of the BDCP is actually true. Currently, the maximum rate of exports from the Delta during drier periods is about 11,300 cubic feet per second (6,680 cfs at the SWP export facility plus 4,600 cfs at the CVP pumps.). The modeling data, however, show that in many months, the combined SWP and CVP exports from the south Delta could be as high as 14,400 cfs. This is an increase in south Delta pumping of 3,100 cfs.</p> <p>The same modeling simulations of the BDCP project alternatives suggest that the BDCP proposed project will increase rather than decrease total SWP and CVP exports during periods of low Delta outflow (drier months). During periods of high Delta outflow, there is no significant increase in export diversions, in large part because farmers' fields are already wet and south-of-Delta reservoirs quickly fill.</p>	The EIR/EIS analyzes a range of alternatives with different operational criteria. The Proposed Project, Alternative 4A, would reduce Delta exports in the summer and fall months of dry and critical dry years and increase exports in winter and spring months as compared to the Existing Conditions and the No Action Alternative, as indicated in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. The Final EIR/EIS includes model results specifically for Alternative 4A as compared to Existing Conditions and No Action Alternative. These results indicate that total Delta exports under Alternative 4A are approximately 6 percent higher in wet years and 3 percent lower in critical dry years as compared to the No Action Alternative. The results also indicate that total Delta exports under Alternative 4A are similar in wet years and 18 percent lower in critical dry years as compared to the Existing Conditions which includes changes due to climate change, sea level rise, and population growth.
1612	163	[ATT2:] Increasing exports from the Delta in the dry months is also inconsistent with the 2009 Delta Reform Act (Water Code Section 85021) which states that the policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. The BDCP proposed project includes no actions to improve regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.	<p>The Draft BDCP EIR/EIS and the Draft BDCP were prepared in a manner to comply with the 2009 Delta Reform Act, as described in Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, of the Draft BDCP EIR/EIS. The comment is consistent with the acknowledgement that the BDCP is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The BDCP is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the BDCP is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).</p> <p>The range of alternatives in the Draft BDCP EIR/EIS includes alternatives which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 4H1, 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under Existing Conditions (shown in Tables 5-5 and 5-8). Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under the No Action Alternative (shown in Tables 5-6 and 5-9). However, SWP and CVP water deliveries would continue under all alternatives.</p>

DEIRS Ltr#	Cmt#	Comment	Response
			With regards to water storage, please see Master Response 37.
1612	164	<p>[ATT2:] Changes in South Delta Exports with BDCP Proposed Project</p> <p>Diversion of water into Clifton Court Forebay is limited by a U.S. Army Corps of Engineers permit. The diversion rate is restricted to a three-day average inflow of 6,680 cfs and a daily average inflow of 6,993 cfs. From December 15 and March 15, the inflow can be increased by one-third of the San Joaquin River inflow to the Delta at Vernalis (for flows equal to or greater than 1,000 cfs.)</p> <p>The SWP also has a permit to export an additional 500 cfs between July 1 and September 30 to replace pumping reductions earlier in the year to benefit Delta fish species. This increases the SWP limit during the summer limit to 7,180 cfs.</p> <p>The CVP export capacity at Jones Pumping Plant near Tracy is about 4,600 cfs, so exports from the Delta are generally restricted to a total of 11,280 cfs, or 11,780 cfs from July-September.</p> <p>It is not obvious from when reading the DEIR/EIS that the BDCP proponents are proposing to eliminate the existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay (DEIR/EIS page 3-32, line 12). The BDCP proponents also assume in the DEIR/EIS that an additional limit on exports imposed by the 2009 NMFS Biological Opinion, the San Joaquin River inflow/exports ratio for April and May would no longer apply. This limit was assumed for the BDCP baseline condition cases (existing biological conditions), but was not included in the BDCP operations scenarios (Draft BDCP, page 5C.2-4, line 7).</p> <p>Both of these relaxations of existing limitations will allow an increase in exports from the south Delta.</p> <p>As will be shown below by plotting monthly-averaged exports as a function of monthly-averaged Delta outflow, and despite the BDCP purpose of improving ecosystem conditions by reducing exports from the south Delta, the BDCP proponents are planning to significantly increase exports from the south Delta in many months. Contrary to the "Big Gulp, Little Sip" concept, most of the increases would occur during the driest months when Delta outflows are the lowest.</p> <p>Figure A-1 [ATT2:ATT1] shows the historical Delta exports as a function of Delta Outflow for the years since the Bay- Delta Accord and SWRCB Water Rights Decision 1641, and the earlier period (1979-1994) after adoption of SWRCB Water Rights Decision 1485. D-1485 introduced minimum Delta outflow requirements and these were made even more stringent in D-1641. The south Delta exports are limited to 11,280 cfs with an extra 500 cfs allowed July-September. The additional allowance based on San Joaquin inflow to the Delta (December 15 -- March 15) typically does not apply until Delta outflows are much higher than 25,000 cfs.</p>	<p>The EIR/EIS analyzes a range of alternatives with different operational criteria. Under Alternative 4A presented in the Final EIR/EIS, the U.S. Army Corps of Engineers limitations on diversions at the SWP South Delta intakes are consistent with the Existing Conditions and the No Action Alternative. The Banks Pumping Plant would operate under Alternative 4A at greater rates than under Existing Conditions or the No Action Alternative due to conveyance of water diverted from the north Delta intakes.</p> <p>As noted in the response to comment 162, the Final EIR/EIS includes model results specifically for Alternative 4A as compared to Existing Conditions and No Action Alternative. These results indicate that total Delta exports under Alternative 4A are approximately 6 percent higher in wet years and 3 percent lower in critical dry years as compared to the No Action Alternative. The results also indicate that total Delta exports under Alternative 4A are similar in wet years and 18 percent lower in critical dry years as compared to the Existing Conditions which includes changes due to climate change, sea level rise, and population growth.</p>
1612	165	<p>ATT2:ATT1: Figure A-1: Historical Delta exports as a function of Delta Outflow for the years since the Bay-Delta Accord and SWRCB Water Rights Decision 1641, and the earlier period (1979-1994) after adoption of SWRCB Water Rights Decision 1485. D-1485 introduced minimum Delta outflow requirements and these were made even more stringent in D-1641. Combined SWP and CVP exports from the south Delta are typically limited to 11,280 cfs, but</p>	<p>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 comment referencing the attachment or the Final EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		an extra 500 cfs can be diverted	
1612	166	ATT2:ATT2: Figure A-2: South Delta exports as a function of Delta Outflow for a BDCP existing base case (with Fall X2) for outflows up to 25,000 cfs. The BDCP is being promoted as improving the Delta ecosystem by reducing exports from the south Delta. The BDCP proposed project, therefore, should be expected to reduce south Delta exports well below 11,280 cfs especially during drier months when fish species are stressed the most.	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 comment referencing the attachment or the Final EIR/EIS.
1612	167	ATT2:ATT3: Figure A-3: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project may reduce south Delta exports in wetter months but significantly increases south Delta exports in a number of drier months when fish species are already stressed.	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 comment referencing the attachment or the Final EIR/EIS.
1612	168	ATT2:ATT4: Figure A-4: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project needs additional limits on exports because it significantly increases, rather than decreases south Delta exports in a number of months, and all those increases occur during the driest months when fish species are already stressed.	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 comment referencing the attachment or the Final EIR/EIS.
1612	169	ATT2:ATT5: Figure A-5: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure A-4 but shows are larger range of Delta outflows (i.e., up to 200,000 cfs). A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project is inadequate and fails to meet the original BDCP goals because it significantly increases, rather than decreases, south Delta exports, and all those increase occur during the driest months when fish species are already stressed.	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 comment referencing the attachment or the Final EIR/EIS.
1612	170	[ATT2:] Changes in Total Delta Exports with BDCP Proposed Project  According to the "Divert more water in the wetter periods and less in the drier periods" principle, BDCP should be expected to export less during periods of low outflow, i.e., export less under existing infrastructure and operation rules.  The total export graph for existing conditions is the same as the plot of south Delta exports (Figure A-2) [ATT2: ATT2] because there are currently no north Delta intakes or isolated facilities.  To ensure that the BDCP operations actually reduce exports during periods of low Delta outflow, it will be necessary for the SWRCB and fishery agencies to set limits on exports based on Delta outflow. The minimum Delta outflows in D-1641 could be increased to 4,000 cfs to provide more protection for fish species. If the current lowest value of 3,000 cfs were retained, then the total exports could be limited to 3,000 cfs. Similarly, if the Delta outflow were 7,100 cfs, the combined SWP and CVP exports could not exceed, say, 10,000 cfs. No more than 13,000 cfs could be exported unless the Delta outflow remained at least 11,400 cfs.  These limits on total exports are hypothetical, but are consistent with the principle of	The EIR/EIS Alternatives are compliant with D-1641 and other existing regulatory criteria. D-1641 already includes a year-round inflow based export limit through its export-inflow ratio requirement.  The EIR/EIS analyzes a range of alternatives with different operational criteria. The Proposed Project, Alternative 4A, would reduce Delta exports in the summer and fall months of dry and critical dry years and increase exports in winter and spring months as compared to the Existing Conditions and the No Action Alternative, as indicated in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. The Final EIR/EIS includes model results specifically for Alternative 4A as compared to Existing Conditions and No Action Alternative. These results indicate that total Delta exports under Alternative 4A are approximately 6 percent higher in wet years and 3 percent lower in critical dry years as compared to the No Action Alternative. The results also indicate that total Delta exports under Alternative 4A are similar in wet years and 18 percent lower in critical dry years as compared to the Existing Conditions which includes changes due to climate change, sea level rise, and population growth.  The EIR/EIS analyzes a range of alternatives with different operational criteria. Under Alternative 4A presented in the Final EIR/EIS, the U.S. Army Corps of Engineers limitations on diversions at the SWP South Delta intakes are consistent with the Existing Conditions and the No Action Alternative. The Banks Pumping Plant would operate under Alternative 4A at greater rates than under Existing Conditions or the No Action Alternative due to conveyance of water diverted from the north Delta intakes.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>reducing exports in drier months, and reducing reliance on the Delta for water supply.</p> <p>These hypothetical "Little Sip" limits on total exports are shown in Figure A-10 [ATT2:ATT10]. The "Little Sip" export limits are compared with the same Low Outflow Scenario data plotted in Figure A-7 [ATT2:ATT7]. The limit on total exports increases with increasing Delta outflow, and would allow for export increases in wetter periods to capture water when it is surplus.</p> <p>The BDCP proposed project is deficient because it fails to reduce exports during drier months. This is in part due to the assumption that key operation limits on export operations will be eliminated (e.g., the Army Corps limits on Clifton Court inflow and NMFS Biological Opinion limits on the San Joaquin inflow to south Delta exports limit).</p>	
1612	171	ATT2:ATT6: Figure A-6: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow). During wetter months (e.g., outflows greater than 10,000 cfs), there are only a few months when exports are greater than existing limit. Without additional south-of-Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water ("Big Gulp").	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 comment referencing the attachment or the Final EIR/EIS.
1612	172	ATT2:ATT7: Figure A-7: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow). The increase in exports in drier months is even worse than for the High Outflow Scenario. During wetter months (e.g., outflows greater than 10,000 cfs), there are only a few months when exports are greater than existing limit. Without additional south-of-Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water ("Big Gulp").	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 comment referencing the attachment or the Final EIR/EIS.
1612	173	ATT2:ATT8: Figure A-8: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure A-7, but extends the range of Delta outflows to 200,000 cfs. During very wet periods (e.g., outflows greater than 60,000 cfs), there are a some of months when total exports approach the 15,000 cfs maximum, but also many months when total exports are less than existing levels. Without additional south-of-Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water during periods of high Delta outflow.	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 comment referencing the attachment or the Final EIR/EIS.
1612	174	ATT2:ATT9: Figure A-9: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 3 which has only 6,000 cfs of north Delta intake tunnel capacity. There are more months with exports in excess of 11,300 cfs during wetter periods (high outflow) than for Alternative 4 (9,000 cfs isolated facility). The reasons for this should be discussed and disclosed in the EIR/EIS.	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 comment referencing the attachment or the Final EIR/EIS.
1612	175	ATT2:ATT10: Figure A-10: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Exports would increase rather than decrease during drier periods (low Delta outflow) and fail to increase to capture more water during wet periods (high Delta outflow). Limiting exports to no more than shown by the green line would ensure that only "little sips" are taken in drier periods to protect fish, and would allow for export increases in wetter periods to capture water when it is surplus.	The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in comment referencing the attachment or the Final EIR/EIS.

DEIRS Ltr#	Cmt#	Comment	Response
1612	176	[ATT2:] The BDCP DEIR/EIS is also inadequate because it fails to analyze any alternatives that can increase exports above existing levels in wetter months. This is not possible without new storage south of and in or immediately adjacent to the Delta.	As described Section B of Appendix 5A, the modeling EIR/EIS Existing Conditions, No Action Alternative and action alternatives included south-of-Delta demand patterns, which consider the available south of Delta storage capacity. Under these assumptions, the modeling showed in increased wet year exports. Therefore, it is likely that even with the existing storage infrastructure, the increased wet year exports can be conveyed. However, with respect to the need for additional storage south of the Delta, the BDCP is just one element of the state's long-range strategy to meet anticipated future water needs of Californians that will include continued investment by the State and other public agencies in storage, conservation, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).
1612	177	[ATT2:] The BDCP proposed project is also inconsistent with the 2009 Delta Reform Act because it relies on increased exports from the Delta, especially in the driest months. The DEIR/EIS must be revised to include alternatives that do not increase south Delta exports, that reduce total exports in drier months, and capture water to storage in wetter months when flow is available that is surplus to the needs of the Delta ecosystem, Delta water quality, in-Delta water users and the Delta as a place.	Please refer to response to comment 1612-163, above.
1612	178	ATT3: Attachment B  BDCP Water Quality Impacts in Barker Slough and Suisun Marsh Areas	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 comment referencing the attachment or the Final EIR/EIS.
1612	179	<p>[ATT3:] The BDCP DEIR/EIS is inadequate because it fails to disclose the impacts of the proposed project and other alternatives on the salinity of water diverted by north Delta farmers in the Barker Slough area (as represented by electrical conductivity, EC). Salinity impacts in some irrigation areas in the Delta are discussed but not the areas of the north Delta within or close to Solano County.</p> <p>Figure B-1 [ATT3:ATT1] presents daily EC data for the Barker Slough area for the period October 1976 through October 1983. The data are from four simulations performed for the BDCP using DWR's DSM2 water quality model. The four simulations are:</p> <ul style="list-style-type: none"> <li>-No Action Alternative at Late Long Term</li> <li>-Proposed Project Alternative 4, Low Outflow Scenario (H1) at Early Long Term</li> <li>-Proposed Project Alternative 4, High Outflow Scenario (H4) at Late Long Term</li> <li>-Proposed Project Alternative 4, Low Outflow Scenario (H1) at Late Long Term</li> </ul> <p>Note that the BDCP only simulated Delta water quality for the period 1976-1991 and only used data for a single drought period, water years 1987-1991, when disclosing drought year impacts (DEIR/EIS page 8- 135, line 23). The DEIR/EIS fails to disclose the impacts on water quality during other drought periods such as 1928-1934 and 1976-1977. The drought that started in 1987 did not end until 1993 (an above normal year) and 1993 was followed by another critical water year. The period 1987-1991 does not even represent the full extent of the 1987-1992 or 1987-1994 drought.</p> <p>The data in Figure B-1 suggest that the BDCP proposed project will not only significantly increase the salinity of irrigation water for farmers in and near Solano County, but will change the time of the periods of high salinity. The peaks of salinity for the no action alternative at late long term (LLT) occur primarily in February and March and are due to local agricultural drainage (according to the DSM2 fingerprint analysis). The peak salinities</p>	<p>The Draft BDCP EIR/EIS DSM2 planning simulations performed over the 16 year period (WY 1976 – 1991) includes the drought periods of 1976-1977 and 1987-1991, which is considered by DWR to be the specific drought period in the 1980s and early 1990s. The use of the DSM2 planning simulations over the 16 year period (WY 1976 – 1991) resulted in a more conservative result (as indicated in this comment) related to water quality as compared to simulations performed over the 82 year period (WY 1922 – 2003).</p> <p>Effects of the project on EC throughout the Delta, including the North Delta, were fully assessed. Increases in salinity do not necessarily result in significant or adverse impacts, as these increases may not affect beneficial uses. Effects of EC on North Delta agriculture were assessed primarily through assessment of EC at the Sacramento River at Emmatton location. Please see Master Response 14 for further information regarding salinity effects.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>for the proposed project at LLT occur earlier in some years (in the fall) and are due to increased seawater intrusion.</p> <p>The BDCP simulations of daily EC in the Barker Slough area show that the salinity increases are very large for the Low Outflow Scenario and smaller for the High Outflow Scenario (which includes higher outflows in the fall to meet Fall X2 and higher outflow requirements in the spring). The salinities are highest during the 1976-1977 drought years.</p> <p>The data in Figure B-1 also suggest that habitat restoration in the north Delta after early long term (ELT) and the resulting changes in local flow patterns, combined with additional sea level rise, will cause significant adverse impacts to irrigation water quality in this region. The salinities for the Low Outflow scenario at ELT are much smaller and primarily due to local agricultural drainage.</p>	
1612	180	ATT3:ATT1: Figure B-1: Variation in daily EC data for the Barker Slough area from October 1976 to October 1983 from the BDCP water quality modeling. Four simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at ELT and LLT and proposed project High Outflow Scenario at LLT.	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 comment referencing the attachment or the Final EIR/EIS.
1612	181	ATT3:ATT2: Figure B-2: Variation in daily EC data for the Barker Slough area from October 1984 to October 1991 from the BDCP water quality modeling. Four simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at ELT and LLT and proposed project High Outflow Scenario at LLT.	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 comment referencing the attachment or the Final EIR/EIS.
1612	182	<p>[ATT3:] Suisun Marsh, in Solano County, is one of the largest contiguous estuarine wetlands in North America. The Marsh is a resting and feeding ground for millions of waterfowl migrating on the Pacific Flyway, and provides essential habitat for numerous birds, mammals and fish, including threatened and endangered species. The quality of water in Suisun Marsh is managed to promote preferred waterfowl habitat and retain wetland resource values.</p> <p>The salinities in eastern Suisun Marsh are controlled under SWRCB Water Rights Decision 1641 at three locations: Sacramento River at Collinsville, Montezuma Slough at National Steel, and Montezuma Slough near Beldon's Landing. The western Delta salinities are regulated at Chadbourne Slough at Sunrise Duck Club and Suisun Slough, 300 feet south of Volanti Slough.</p> <p>The DEIR/EIS is inadequate because it only assesses Suisun Marsh EC qualitatively, using average EC for the entire period modeled (1976-1991) -- see Chapter 8 of the DEIR/EIS at page 8-157. The 82-year averages suggest that the BDCP proposed project would substantially increase salinities at Montezuma Slough at Beldon's Landing (i.e., over a doubling of concentration in December through February) (DEIR/EIS, Appendix 8G, Figure CI-8). This will seriously impair the ability of Suisun Marsh landowners to manage water quality and will adversely impact fish and wildlife beneficial uses. However, the 82-year averages do not disclose sufficient detail about the timing and magnitude of the salinity changes for individual months of different water year types.</p> <p>Figure B-3 [ATT3:ATT3] shows the BDCP simulations of the variation in daily EC in Suisun Marsh at Beldon's Landing from October 1976 through October 1983. There are significant adverse impacts to salinity for the proposed project for both the Low Outflow and High Outflow scenarios. The largest increases in salinity occur primarily in the fall. The impacts</p>	<p>The EC objectives for Suisun Marsh in the Bay-Delta Water Quality Control Plan are expressed as the "Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location," which is a much smaller time scale than the modeling output should be used for assessment. Regarding use of 15-minute or daily data for assessment purposes, Appendix 5A Section C of the Draft EIR/EIS, "Appropriate Use of Model Results" states that: "Due to the assumptions involved in the input data sets and model logic, care must be taken to select the most appropriate time-step for the reporting of model results. Sub-monthly (e.g. weekly or daily) reporting of model results is inappropriate for all models and the results should be presented on a monthly basis."</p> <p>The models contain various assumptions and limitations that preclude use of daily or sub-daily modeling results for most assessments, particularly those that compare modeling results to specific thresholds. A detailed description of modeling limitations can be found in Appendix 5A of the Draft EIR/EIS, as well as in Chapter 8, Water Quality Sections 8.3.1.1 and 8.3.1.3 of the RDEIR/SDEIS and Final EIR/EIS. Given the models used and the associated limitations in interpreting the output, utilizing a shorter time step than monthly average for assessing the Suisun Marsh objectives would not result in a more accurate assessment of effects of the project on salinity. Nevertheless, the EC assessment in WQ-7 did acknowledge long-term changes in EC at Suisun Marsh locations where they would occur, and those with substantial increases that would adversely affect beneficial uses were identified as significant and mitigation identified.</p> <p>Also, the Final EIR/EIS proposes Alternative 4A as the preferred alternative. Alternative 4A would result in substantially lesser water quality impacts to salinity-related parameters, including EC as compared to the preferred alternative in the Draft EIR/EIS. Alternative 4A would still have significant impacts to EC; however, feasible mitigation measures were introduced to reduce the identified impacts to less than significant levels to protect beneficial uses and achieve compliance with SWRCB D-1641 standards.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>are greatest for the Low Outflow scenario which assumes there will not be any Fall X2 requirements.</p> <p>Figure B-4 [ATT3:ATT4] shows the corresponding Beldon's Landing salinity data (EC) for the period October 1984 through October 1991.</p> <p>These increased EC levels in Suisun Marsh are substantial and will have adverse impacts on marsh beneficial uses, and must be mitigated.</p>	
1612	183	ATT3:ATT3: Figure B-3: Variation in daily EC data for the Montezuma Slough at Beldon's Landing from October 1976 to October 1983 from the BDCP water quality modeling. Three simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at LLT, and proposed project High Outflow Scenario at LLT.	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 comment referencing the attachment or the Final EIR/EIS.
1612	184	ATT3:ATT4: Figure B-4: Variation in daily EC data for the Montezuma Slough at Beldon's Landing from October 1984 to October 1991 from the BDCP water quality modeling. Three simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at LLT, and proposed project High Outflow Scenario at LLT.	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 comment referencing the attachment or the Final EIR/EIS.
1613	1	<p>Re: Comments on Bay Delta Conservation Plan, Implementing Agreement and Draft EIR/EIS</p> <p>Placer County Water Agency (PCWA) appreciates the opportunity to provide comments on the proposed draft Bay Delta Conservation Plan (BDCP or Plan), draft Implementing Agreement (IA) and Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS). Below we provide introductory background information related to PCWA and our comments on the BDCP, IA and DEIR/EIS. Because the BDCP states that the Plan and supporting documents are incorporated in the DEIR/EIS, our comments on the BDCP should also be considered comments on the DEIR/EIS.</p> <p>In addition to the comments outlined in this letter, PCWA has participated in the preparation and submittal of comments as part of the North State Water Alliance (NSWA) [see BDCP1597] and the American River Water Agencies (ARWA) [see BDCP1511]. Both the NSWA and ARWA have submitted comment letters on the BDCP, IA, and DEIR/EIS; PCWA, as a member of each of those groups, joined in those letters. This comment letter summarizes specific comments already made by NSWA and ARWA on PCWA's behalf and makes other comments in more detail. In addition, PCWA has engaged expert consultants to assist in the review of the BDCP and the DEIR/EIS and is providing copies of technical memoranda prepared by those experts. The analysis and conclusions contained in those technical memoranda are attached hereto and incorporated herein.</p>	See response to comments in this letter below. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.
1613	2	Placer County Water Agency fully appreciates the water supply reliability challenges facing California, which will likely get worse with ongoing changes in Sierra precipitation patterns and rising sea level. This future reality is previewed in the BDCP's modeling where the modeling predicts that in the next 50 years, several Northern California reservoirs would reach "dead pool" in the absence of modifications to project operations and regulatory standards. Climate change will irrevocably alter environmental conditions in the Delta and significantly reduce the reliability of water movement from northern California Central Valley Project (CVP) and State Water Project (SWP) reservoirs, through existing Delta facilities, to central and southern California water customers. In addition to the myriad legal and technical flaws in the BDCP project described below, the project fails to fulfil its fundamental requirement to adequately inform the public and decision makers about the	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 (BDCP) remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 Public Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. Please see also Master Response 5 for discussion of the BDCP effects analysis. Please

DEIRS Ltr#	Cmt#	Comment	Response
		<p>effects of the BDCP and climate change on the entirety of Northern California’s water systems.</p> <p>The BDCP’s singular focus on improving export water conveyance through the Delta in a changing climate, while pretending that Delta environmental objectives will remain static and ignoring upstream water supply and environmental impacts, fails to render a comprehensive picture of the Delta and the State’s water supply issues. Ultimately the BDCP offers only a simplistic partial solution, at best, to a complex statewide problem. In addition to attempting to solve water conveyance problems through the Delta, the BDCP must deal with the totality of the climate change issue, which includes effects on upstream water user’s water supply reliability, Delta environmental conditions, and export water supply reliability.</p>	<p>see also Master Response 19 for additional information on climate change.</p> <p>The No Action Alternative and all of the EIR/EIS alternatives include climate change and sea level rise assumptions. These changes would result in “dead pool” conditions in SWP and CVP reservoirs upstream of the Delta even without the action alternatives. The “dead pool” conditions presented in the CALSIM II model results in the EIR/EIS are developed from calculated monthly average reservoir volumes. Because the model only calculates and reports SWP and CVP water operations at an average monthly basis, the model cannot simulate changes that occur on a weekly basis by water users and SWP and CVP operations. In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. Instead the model includes average operating criteria for all dry periods, and does not reflect specific changes. The dead pool conditions occur in the No Action Alternative as compared to the Existing Conditions because the model includes changes in precipitation without making changes in water diversion patterns. It would be speculative to include the climate change adaption strategies in the No Action Alternative in the EIR/EIS. Future changes in the SWP and CVP operations to respond to climate change and sea level rise would require separate engineering environmental analyses under CEQA and NEPA.</p> <p>The proposed project is one component, among many, of the California Water Action Plan. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: <a href="http://www.waterplan.water.ca.gov/">http://www.waterplan.water.ca.gov/</a>.</p> <p>By establishing a point of water diversion in the north delta and new operating criteria, the proposed project is designed to improve native fish migratory pattern and allow for greater operational flexibility. Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS. Appendix 1B, Water Storage, EIR/EIS, describes the potential for additional water storage and Appendix 1C, Demand Management Measures, EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead Agencies recognize that they are important tools in managing California’s water resources.</p>
1613	3	<p>The BDCP’s failure to deal with the imperative that the State’s environmental objectives, regulatory regime, and CVP and SWP operations must adapt to the effects of climate change leaves the reader with no basis from which to evaluate the impact of BDCP facilities. The BDCP is singularly proposed to protect the export community’s water supply reliability from the impact of climate change. The BDCP does not even attempt to set forth an appropriate operation plan to ensure fulfillment of CVP and SWP water supply obligations to the North State to avoid a complete economic and environmental collapse. By incorrectly assuming that climate change will not affect the State’s Delta environmental objectives and by using the environmental baseline presented in the DEIR/EIS that hides all upstream impacts (water supply and environmental) the BDCP does not allow a meaningful assessment of the potential BDCP impacts. The result is that impacts are either not identified or not sufficiently addressed in the BDCP and its DEIR/EIS.</p>	<p>Please refer to Appendix 5A, which describes operational criteria for the Existing Conditions, No Action Alternative, and all action alternatives for the purposes of modeling assumptions used in the EIR/EIS. It is recognized that operations in the SWP and CVP reservoirs and other reservoirs probably will be modified in the future in response to climate change and other water resources operations. However, it would be speculative to develop changes in reservoir operations under the No Action Alternative or Cumulative Impact Analysis; and these changes are not consistent with the Project Objectives and Purpose and Need statement for the BDCP Alternatives. Future changes in reservoir operations would require separate engineering environmental analyses under CEQA and NEPA, and revised reservoir operations permits which could affect SWP and CVP operations.</p> <p>Appendix 29D of the EIR/EIS addresses potential SWP/CVP responses to future climate change and sea level rise conditions. See also response to comment 1613-2.</p>
1613	4	<p>Placer County Water Agency’s comments on the BDCP and DEIR/EIS focus on project impacts in the American River basin. PCWA’s additional concerns with the BDCP documents are set forth in the NSWA and ARWA comment letters.</p> <p>A. The BDCP Operational and Hydrologic Modeling Is Flawed</p>	<p>Climate change and sea level rise assumptions would result in “dead pool” conditions in SWP and CVP reservoirs upstream of the Delta even without the action alternatives. Please see response to comment 1613-2. The “dead pool” conditions presented in the CALSIM II model results in the EIR/EIS are developed from calculated monthly average reservoir volumes. Because the model only calculates and reports SWP and CVP water operations at an average monthly basis, the model cannot simulate changes that occur on a</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The modeling conducted for the BDCP and its effects analysis, including modeling associated with Folsom Reservoir and the American River, is deficient in several respects. First, while the BDCP anticipates changes in hydrologic patterns as a result of climate change, the BDCP modeling assumes there would be no change to CVP operations to respond to those changes. [footnote 1: While the problems with climate change extend to the CVP and SWP, PCWA here addresses only the flaws as they relate to the American River Basin. Climate changes issues system wide are addressed in the letter submitted by the NSWA.] This unrealistic assumption results in an equally unrealistic conclusion that, in the future, Folsom Reservoir will reach "dead pool" in nearly 10 percent of years. Not only would this have untenable impacts on Folsom Reservoir water users but it would also result in unacceptable impacts to Central Valley steelhead and fall-run Chinook salmon populations in the American River. Of course the CVP would not be operated as assumed. Instead, as evidenced by modification of CVP operations this year in response to the severe drought, CVP operations would most certainly change in response to climate change. With these and other errors, the existing BDCP technical analysis cannot support State and federal agencies' project approvals. The technical analysis needs to be updated and corrected to ensure that the best available, accurate, scientific tools are used to evaluate the BDCP's impacts.</p>	<p>weekly basis by water users and SWP and CVP operations. In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. Instead the model includes average operating criteria for all dry periods, and does not reflect specific changes. The dead pool conditions occur in the No Action Alternative as compared to the Existing Conditions because the model includes changes in precipitation without making changes in water diversion patterns. The EIR/EIS analysis considers changes between the frequency of dead pool conditions under the alternatives and the No Action Alternative (both with the same climate change assumptions) to determine if the changes are adverse or beneficial.</p> <p>It would be speculative to include the climate change adaption strategies in the No Action Alternative in the Draft EIR/EIS. These changes also would not be consistent with the Project Objectives and Purpose and Need statement and therefore are not included in the action alternatives. Future changes in the SWP and CVP operations to respond to climate change and sea level rise would require separate engineering environmental analyses under CEQA and NEPA.</p> <p>Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results and Master Response 19 for additional information on climate change. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	5	<p>Because of the significant fundamental flaws [in the modeling], developing comprehensive and detailed comments on the BDCP and the DEIR/EIS is difficult at best. The lack of any well- defined operating plan for Folsom Reservoir, inappropriate climate change assumptions, basic errors in hydrologic modeling, errors in future upstream demands, and an effects analysis based on this flawed modeling leaves the public in the position of trying to correct the significant flaws in the document in order to assess the true impacts of the project. The burden of producing a comprehensible DEIR/EIS, Habitat Conservation Plan (HCP) and Natural Communities Conservation Plan (NCCP) and supporting analyses should not fall on the public. Instead, a project proponent is required to provide adequate and comprehensible public draft documents for public comment. Once the significant flaws in the BDCP are addressed and the BDCP is recirculated for public review and comment, the public will be in a better position to understand the true impacts of the BDCP and to provide detailed comments.</p>	<p>See Responses to Comments 1613-2 and 1613-4. As described in response to comment 1613-2, the preferred alternative, Alternative 4A, does not include an HCP; however, Alternative 4 remains a potentially viable because it represents the original HCP/NCCP alternative approach. Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results. Please see also Master Response 19 for additional information on climate change. Please see Master Response 5 more information on the BDCP effects analysis.</p> <p>Operation of the new north Delta facilities will be guided by strict regulations that are set by the SWRCB. Adaptive management and collaborative science will aid operators in managing the pumping schedule in the presence of sensitive species. Appendix B of the RDEIR/SDEIS shows supplemental modeling results for the new alternatives. In particular Section B.2.1 Alternative 4A the modeling demonstrates that under the preferred alternative (4A) reservoir levels (e.g., Trinity Lake, Shasta Lake, Folsom Lake, and Lake Oroville) would be similar to the No Action Alternative (ELT).</p> <p>The Proposed Project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations. The organizations that have participated in the Steering Committee, public meetings or written letters to provide input on the Plan include: American Rivers, Bay Institute, Defenders of Wildlife, The Endangered Species Coalition, Environmental Defense Fund, The Golden Gate Salmon Association, National Audubon Society, Natural Resources Defense Council, the Nature Conservancy, and Planning and Conservation League. The feedback was used to guide the development and subsequent revisions of the Proposed Project and its associated EIR/EIS to reflect concerns addressed from the various groups. All of the documents, studies, administrative drafts, and meeting materials have been posted online since 2010 in an unprecedented commitment to provide public access and government transparency. Although the RDEIR/SDEIS, EIR/EIS and much of the proposed project has been drafted by scientists working for a private consulting firm (ICF) working for the Lead Agencies, the Agencies' scientists have been intimately involved, and their judgments are reflected throughout the EIR/EIS and the proposed project itself. The State is most interested in putting forth the best project that meets the goals of ecosystem improvement and water supply reliability. To the degree that the current Plan is endorsed by some environmental organizations serves as confirmation that the proposed Plan protects species, habitats and the Delta ecosystem in a way that is compatible with their goals. The website includes correspondence from agencies and NGOs received prior to the start of the formal comment</p>

DEIRS Ltr#	Cmt#	Comment	Response
			period. Comments received during the comment period are to be included in the Final EIR/EIS.
1613	6	<p>The Modeling Fails to Accurately Depict Climate Change</p> <p>The BDCP modeling does not reasonably represent future conditions with climate change because it failed to consider whether the CVP and/or SWP operations would adapt to respond to climate change. (MBK Engineers, Technical Comments on the Bay-Delta Conservation Plan Modeling, dated July 11, 2014 (MBK Memo), pp. 11-12) The MBK Memo, attached hereto as Exhibit A [ATT1], notes the CVP and SWP already are implementing various adaptations to their operations to deal with the current and previous droughts. (MBK Memo, pp. 11-12) All of these adaptations, which include updating flood control releases to reflect a changing climate, mandatory conservation, and modifying water allocation rules, reasonably can be expected to continue in response to climate change. Each of these adaptations has a significant effect on the outcome of the model results. The failure to include these adaptations in the BDCP modeling undermines the validity of the results and the DEIR/EIS impact determinations on which they are based.</p> <p>Indeed, the MBK Memo [ATT1] finds that the CalSim II operations depicted in the BDCP modeling "do not represent a reasonably foreseeable future operation of the CVP and SWP." (MBK Memo, p. 12) The MBK Memo further finds that the "depicted [No Action Alternative] operations are so fundamentally flawed that there can be no confidence even in the comparative results." [MBK Memo, p. 12]</p>	See responses to comments 1613-2 and 1613-5. Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results. Please also refer to responses in Letter 1722.
1613	7	<p>The BDCP modeling is inappropriate because the model simplistically assumes that climate change would result in changes to inflow into Folsom Reservoir, without recognizing that reservoirs upstream of Folsom Reservoir would respond to climate change and would therefore impact the timing of flows into Folsom Reservoir. (MBK Memo [ATT1], pp. 8-10) The Middle Fork Project and other projects with significant storage capacity upstream of Folsom Reservoir will adapt to climate change, which will significantly affect inflow into Folsom Reservoir, beyond that assumed in the BDCP model. (MBK Memo, pp. 8-9) These changes will affect American River operations in a number of ways, including flood control operations, water supply, and downstream environmental water requirements. (MBK Memo, p. 10)</p>	Please see Master Response 30. See also responses to comments 1613-2 and 1613-5. As described in response to comment 1613-4, operation of the new north Delta facilities will be guided by strict regulations that are set by the SWRCB. Adaptive management and collaborative science will aid operators in managing the pumping schedule in the presence of sensitive species. Appendix B of the RDEIR/SDEIS shows supplemental modeling results for the new alternatives. In particular Section B.2.1 Alternative 4A the modeling demonstrates that under the preferred alternative (4A) reservoir levels (e.g., Trinity Lake, Shasta Lake, Folsom Lake, and Lake Oroville) would be similar to the No Action Alternative (ELT). Please also refer to responses in Letter 1722.
1613	8	<p>Without an appropriate depiction of climate change [in the model], it is difficult to ascertain the true impacts of the BDCP on the American River environment. As explained in the American River Water Agencies Letter[BDCP1511], incorrect assumptions could result in devastating impacts to American River fisheries, rendering the BDCP, at best, ineffective in achieving any of the goals of the Plan. At worst, the BDCP could exacerbate the plight of some species. Both the BDCP and the DEIR/EIS fail to comply with applicable law because of these defects.</p>	<p>See responses to comments 1613-2 and 1613-6. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p> <p>Effects on American River fisheries are analyzed in Final EIR/EIS Chapter 11, Fish and Aquatic Resources and associated appendices.</p>
1613	9	<p>The BDCP and BDCP Modeling Fail to Appropriately Account for Upstream Water Demands</p> <p>In addition to incorrect Folsom Reservoir inflow data, the BDCP and its associated model have underestimated future American River Basin water demands. As explained in the MBK Memo [ATT1], future demands for Placer County Water Agency are not correct. (MBK Memo, p. 3) BDCP modeling assumes Middle Fork Project demands of 64,000 to 81,000 acre-feet per year; PCWA projects its future demands, based on approved general plans of local land use agencies, to be 120,000 acre-feet from the MFP. The error is significant. The modeling also improperly assumes that water demand in the American River Basin will</p>	See response to comment 1613-2. Please also refer to responses in Letter 1722. The increased water demands projected for 2025 under the No Action Alternative, Proposed Project, and all action alternatives are consistent with published urban water management plans and agricultural water management plans for entities that effect the American River watershed flows submitted to DWR by 2012, including approaches for urban water management plans to meet the 20 percent per capita urban water use by 2030. The conveyance facilities would not be operational until 2025, at 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. The CALSIM II model

DEIRS Ltr#	Cmt#	Comment	Response
		<p>increase rapidly between 2010 and 2025, but will then remain unchanged for the following 35 years. (MBK Memo, p. 3-4) The failure to appropriately account for future upstream demands calls into question the accuracy of the underlying analysis in the BDCP and the DEIR/EIS. Not only does this error have the potential to affect the availability of water for future operations under the various BDCP operational scenarios, it also denies the public of relevant information regarding the environmental impacts of the proposed project and prohibits thoughtful and meaningful consideration of the effects of the BDCP. For this additional reason, the BDCP and DEIR/EIS fail to comply with applicable law.</p>	<p>runs for the Existing Conditions, No Action Alternative, proposed project, and other action alternatives include delivery of water to all water rights holders that are senior to the DWR and Reclamation water rights for the SWP and CVP, including water rights for Placer County Water Agency. As future water demands increase, there will be an increased water use by senior water rights holders in the American River watershed would reduce the availability of water for the SWP and CVP operations, as indicated in the EIR/EIS through the comparison of the No Action Alternative and Existing Conditions. The No Action Alternative includes an additional 177,000 acre-feet/year of water rights diversions upstream of Folsom Lake for senior water rights holders.</p> <p>Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>
1613	10	<p>Inappropriate consideration of future demands [in the water modeling] is a concern for another reason. Generally, there are two types of circumstances relevant to the Endangered Species Act's (ESA's) "No Surprises" rule: unforeseen circumstances and changed circumstances. Unforeseen circumstances, also called "extraordinary circumstances," are changes over the life of an HCP that were not or could not be anticipated by the applicants, United States Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS.) Changed circumstances, on the other hand, are not uncommon and can reasonably be anticipated and planned for. [50 CFR [Section] 17.32 (b)(5)]</p> <p>One such changed circumstance, as it relates to the BDCP, is that water supplies currently being exported by the CVP and SWP will be needed in the counties or areas where the water currently being exported originates. California law expressly recognizes the prior right of communities in those areas to water currently being exported, to the extent that water will be needed to adequately supply the beneficial needs of those originating areas. (Water Code, [Sections] 10505, 10505.5, 11460, 11463 and 11128; also [Sections] 12200-12220) That demand for water will increase upstream of the Delta with population growth, and thus the likelihood that less water will be available for export is reasonably foreseeable. At a minimum, the BDCP must account for this increased demand as a changed circumstance. Increased demands in the areas of origin have either been omitted entirely or are otherwise underestimated in the BDCP modeling. As explained above, future demands for Placer County Water Agency are significantly underestimated. The BDCP must accurately describe future demands in the area of origin and disclose the impacts to species of less water being available for BDCP permittees/participants.</p>	<p>The No Action Alternative, Proposed Project, and all other action alternatives were evaluated at 2030 conditions which include population growth projected by existing general plans as compared to the Existing Conditions. The additional population growth would increase water demands, including an increase of water demands in areas North of the Delta (primarily in El Dorado, Placer, and Sacramento counties) of 443,000 acre-feet per year of users of water rights water and CVP water supplies (including increased water demand in the American River watershed upstream of Folsom Lake for senior water rights) as compared to Existing Conditions, as described in Chapter 5, Water Supply, of the Final EIR/EIS. The increased water demands projected for 2030 under the No Action Alternative, Proposed Project, and all action alternatives are consistent with published urban water management plans and agricultural water management plans for entities that effect the American River watershed flows submitted to DWR by 2012, including approaches for urban water management plans to meet the 20 percent per capita urban water use by 2030 when the conveyance facilities would be operational until 2030. Chapter 30 of the EIR/EIS, describes long-term water demand in the hydrologic regions based on projections from the California Water Plan which includes assumptions that water conservation will be implemented by 2030 in accordance with State law.</p> <p>Please see responses to comments 1613-2 and 1613-5. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results. Please see Master Response 26 for discussion of how the proposed project affects Area of Origin.</p>
1613	11	<p>The Modeling Fails to Include an Operations Plan</p> <p>CEQA requires that an EIR include a definite description of the project so that the public can understand what the lead agency is proposing. CEQA imposes requirements regarding: (1) the time at which a project is defined; and (2) the breadth of the definition. Because the EIR is intended to inform an agency's decision regarding the project, CEQA requires that an accurate, stable and finite description of the project be established early enough in the planning stages of the project to enable environmental concerns to influence the project's program and design, yet late enough to provide meaningful information for environmental assessment." [Planning</p> <p>&amp; Conservation League v. Castaic Lake Water Agency (2009) 180 Cal. App. 4th 210, 234-35 (internal quotations and citations omitted)] The description of the project is coded into the BDCP model. The model thus becomes the "project" for purposes of CEQA review. It is critical, then, that the model and its assumptions accurately and consistently reflect the</p>	<p>See response to comment 1613-2. Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results. Please also refer to responses in Letter 1722.</p> <p>The CALSIM II modeling for the EIR/EIS has been based on the baseline and Alternative 1 models developed in April – May of 2010 (2010 models). In 2010, CALSIM II baseline model was updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for the BDCP Alternative 1 model development in 2010. All the action alternatives modeled since then continued to be based on the 2010 models allowing comparability with the baselines. Inevitably, the models always evolve as the understanding of the operations improves and the assumptions are better defined. 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. This update was performed to verify if the compiled model improvements have altered the incremental changes between the BDCP Alternative 1 and the</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>proposed operation of the project. The MBK Memo [ATT1] explains that a "detailed operating plan of existing facilities and the proposed facility is essential to create an accurate model of how a proposed action will affect existing water operations." (MBK Memo, p. 2)</p> <p>The MBK Memo finds, however, that the modeling contains many flaws and recommends that more realistic operating rules be developed to account for hydrologic conditions expected over the next half century. (MBK Memo, p. 13) As explained in greater detail in the North State Water Alliance Letter[BDCP1597], the BDCP Model contains erroneous assumptions, errors, and outdated tools, which result in impractical or unrealistic CVP operations. These unrealistic operations, in turn, do not accurately depict the effects of the BDCP. Coding errors and operating assumptions are inconsistent with the actual purposes of the CVP, which limits the utility and accuracy of the BDCP modeling results. (MBK Memo, p. 2) The critical failings of the modeling undermine the accuracy and adequacy of the project description, rendering the DEIR/EIS inadequate under CEQA. Moreover, because the CalSim II modeling is the basis for all of the other effects analysis, these errors propagate throughout the entire document. As the MBK Report states, "[a]ny errors and inconsistencies identified in the underlying CalSim II model are therefore present in subsequent models that estimate impacts on water quality, hydrodynamics, hydropower, and other parameters and adversely affect the results of analyses based on those subsequent models." (MBK Memo, p. 2)</p>	<p>baseline relative to the 2010 modeling. The findings from the 2011 update showed that the results remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability.</p> <p>The CALSIM II and DSM2 models are prospective and not predictive modeling tools. These tools are to be used to compare alternatives, and not to identify absolute values, as described in Chapter 5 of the EIR/EIS. Therefore, the Draft EIR/EIS impact analysis compares the results for conditions under the action alternatives to conditions under the Existing Conditions and the No Action Alternative. Assumptions that would be consistent between the No Action Alternative and the action alternatives would not result in major changes in the incremental changes which are used to compare the alternatives. However, a sensitivity analysis related to these without project assumptions is presented in Appendix 5 of the Final EIR/EIS.</p> <p>The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts (using the best available science and modeling), direct and cumulative, that project description is complete and satisfies the requirements of NEPA, and that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies believe that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments.</p>
1613	12	<p>The BDCP and DEIR/EIS Do Not Adequately Describe How the BDCP Would Affect CVP Operations</p> <p>The BDCP's fundamental purpose is to provide the BDCP proponents with 50 years of coverage, or "regulatory assurances," under the ESA and the Natural Community Conservation Planning Act (NCCPA.) The BDCP proponent CVP/SWP contractors are only a subset of the entire CVP/SWP project water service contractors. The BDCP explains that the Department of Water Resources and BDCP proponent contractors' further obligations for maintaining the species covered by the BDCP would be limited under the No Surprises policy and other policies. (BDCP, pp. 6-28 - 6-30, 6-45 - 6-46) The BDCP, however, acknowledges that USBR - and, implicitly through USBR, the CVP contractors who are not BDCP proponents - cannot receive that level of regulatory certainty because USBR's operation of the CVP generally would be subject to possible consultation under ESA section 7(a)(2). (BDCP, pp. 7-9 to 7-10) The BDCP and DEIR/EIS are inadequate because they do not adequately explain how actions under the BDCP could be disentangled from USBR's operation of the CVP. They also do not adequately explain the potential effects on other CVP contractors, other water users, and the environment of implementing the BDCP with the BDCP proponents' having limited responsibilities for the relevant listed species.</p> <p>The DEIR/EIS describes USBR's action as follows:</p> <p>"Reclamation's action in relation to the BDCP would be to adjust CVP operations specific to the Delta to accommodate new conveyance facility operations and/or flow requirements under the BDCP, in coordination with SWP operations."</p> <p>(DEIR/EIS, pp. 3-1, 3-5, 3-40)</p> <p>This is not a sufficient project description. How will USBR adjust CVP operations? Affected operations are not limited to the Delta - the effects extend upstream to the American River,</p>	<p>As described in response to comment 1613-2, the preferred alternative is now Alternative 4A which does not include an HCP. However, Alternative 4 remains a potentially viable because it represents the original 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.</p> <p>The proposed project (Alternative 4A) is going to mitigate for impacts and restore habitat for fish and wildlife listed in Section 4.3.7 and 4.3.8 of the RDEIR/SDEIS. Impacts that are going to potentially occur during the implementation timeline are fully disclosed with its associated mitigation measure to decrease the severity of said impact to covered species. Please see Appendix 1A Evaluation of Species Considered for Coverage of the BDCP for additional information on screening criteria of fish and wildlife species that were selected for the other 15 conveyance alternatives.</p> <p>Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS include in-depth, comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		including Folsom Reservoir operations. This issue is not adequately addressed in the DEIR/EIS.	
1613	13	The BDCP contains no CVP operations plan that could explain how CVP "operations specific to the Delta" could be segregated from other CVP operations so that each set of operations would bear only its appropriate level of responsibility for listed species during BDCP's 50-year term. U.S. Bureau of Reclamation (USBR) generally operates the CVP as a coordinated system. For many years, USBR's operation of the CVP has been the subject of Endangered Species Act (ESA) Biological Opinions covering all project operations. The BDCP acknowledges, for example, that in relation to the H4/high outflow alternative, SWP operations may trigger obligations under the Coordinated Operating Agreement (COA) under which the CVP would need to contribute resources as part of "subsequent accounting" due to the SWP's operation to contribute water from Oroville Reservoir to meet the H4 Delta-flow requirements. (BDCP, p. 3.4-19)	Operations under the new proposed project, Alternative 4A includes Fall X2 requirements consistent with the 2008 USFWS biological opinion and enhanced spring outflow criteria to minimize and avoid project-related impacts to longfin smelt.  As described in Appendix 5A, Section B, of the Final EIR/EIS flows to meet the Delta outflow criteria based upon the State Water Resources Control Board Decision 1641 and the 2008 USFWS biological opinion are provided by a combination of SWP and CVP reservoir releases and limitations on Delta exports. Under Alternatives 4 H2 and 4 H4, water to support enhanced spring Delta outflow was provided by additional water releases from reductions in Delta exports and releases from Lake Oroville. The enhanced spring Delta outflow was considered to be met outside of the Coordinated Operations Agreement which defines sharing criteria between the SWP and CVP. This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, Modeling Results. Under Alternative 4A, the enhanced spring Delta outflow was only met by reduction in Delta exports.
1613	14	The BDCP creates a significant risk to water users who are not BDCP proponents that their water uses will be affected by events that would be within what the BDCP defines as "unforeseen circumstances." (See BDCP, pp. 6-45 to 6-46) Under the Plan, BDCP proponents presumably would be immune from most consequences of such circumstances' occurrence, but the BDCP does not explain how those assurances could affect other water users, and especially CVP contractors who are not BDCP proponents. If the BDCP had contained an operations plan demonstrating how USBR would operate in conjunction with BDCP to address the needs of those non-BDCP CVP contractors, then it might have been possible for the DEIR/EIS to explain how granting BDCP proponents' desired assurances might affect those other water users. No such operations plan exists. Instead, as discussed elsewhere in these comments, and in the American River Water Agencies Letter[BDCP1511], the BDCP's hydrologic modeling assumes that, in the case of climate change, Reclamation generally would operate upstream reservoirs so that they would go dry in 10% of years, which would cut off supplies to many non-BDCP CVP contractors and other legal users of water.  Without a well-described operations plan for at least the CVP that explains how BDCP's terms - especially, the regulatory assurances its proponents would receive - would be integrated with CVP operations outside the scope of the Plan, the BDCP and DEIR/EIS lack evidence necessary to support the findings under the ESA and NCCPA or adequate environmental analysis under NEPA and CEQA.	Operational assumptions to integrate the operations of the new facilities and the existing SWP and CVP facilities are presented in Chapter 3 and Appendix 5A, Section B of the Final EIR/EIS for all of the alternatives, including the Proposed Project, Alternative 4A. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.
1613	15	BDCP Would Have an Adverse Impact on American River Fisheries  The North State Water Alliance Letter[BDCP1597] outlined significant concerns with the BDCP's effects on Sacramento River Basin anadromous salmonids generally. In addition to those significant concerns, the BDCP will likely have devastating impacts on American River fisheries. [Cardno ENTRIX, Technical Memo, Effects of Bay Delta Conservation Plan on Central Valley Steelhead and Fall-run Chinook Salmon in the Lower American River, dated July 2014 (Cardno Memo).] The Cardno Memo is attached hereto as Exhibit B [ATT2].  Cardno has reviewed information contained in the BDCP and the DEIR/EIS to analyze impacts to American River fisheries - specifically on Central Valley (CV) steelhead and fall-run Chinook salmon. Cardno has concluded that the DEIR/EIS's effects analysis "is fundamentally flawed and fails to disclose significant adverse impacts on CV steelhead and	Please see Chapter 11 in the Final EIR/EIS, for a discussion on the methodology used for reaching a conclusion for fish Impacts related to water operations, which includes impacts on the American River. Impact determinations were based on a combination of biological models, numerical thresholds (based on existing literature, consultation with state and federal fish agencies, and existing regulatory requirements), and subject matter expert opinion.  Alternative 4A would not alter reservoir operational criteria, instream flows, or water temperatures in the American River from baseline conditions. When comparing American River impacts in Alternative 4A against impacts in the No Action Alternative (NAA; both alternatives include future conditions in the early long-term (2025), thus making it an apples-to-apple comparison, in contrast to the existing conditions baseline, which does not include assumptions in the future), it was determined there would no adverse impacts to aquatic resources in the American River. While some modeling outputs indicated differences between the NAA and the preferred alternative, these differences either did not occur frequent enough or in

DEIRS Ltr#	Cmt#	Comment	Response
		<p>fall-run Chinook salmon and their habitat in the Lower American River." (Cardno Memo, p. 1) By failing to disclose the BDCP's significant impacts, the DEIR/EIS does not comply with NEPA and CEQA.</p>	<p>the months that are most important for certain life stages, the magnitude of change did not warrant an adverse determination, and/or the differences between alternatives were small enough that they were within the margin of error of the models (usually &lt;5%). In addition, Mitigation Measure AQUA-78d commits to using real-time operational adjustments at Folsom, Shasta, and Oroville Reservoirs, whenever possible, to slightly adjust operations, within all existing regulations and requirements, to reduce migration-related effects to Fall-run Chinook salmon. While the modeling used in this analysis represents the best available science, it should also be noted that due to inherent modeling uncertainties and the inability to predict actual future conditions ( including real-time operational adjustments), modeling outputs should be used on a comparative basis only and are not intended to be used as predictive tools.</p> <p>It also should be noted that the increase in water temperatures in the American River are due to low storage elevations in Folsom Lake in drier years, including years during which the CALSIM II model results indicate that Folsom Lake would be at "dead pool" conditions with surface water elevations that would affect releases from Folsom Lake to the American River. Please see responses to comments 1613-2 and 1613-4. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	16	<p>Water temperatures in the lower American River (LAR) already exceed threshold tolerances for anadromous fish during critical life stages. (Cardno Memo, pp. 2-3 [ATT2]) As explained by Cardno, the No Action Alternative (NAA) contained in the BDCP and DEIR/EIS</p> <p>"...existing conditions. The NAA would likely cause age class failures in drier years and eventual local extinction of the small natural rearing CV steelhead population in the LAR. The NAA would result in large scale fall-run Chinook salmon fish kills in the fall of the drier years." (Cardno Memo, p. 6)</p> <p>When comparing future existing conditions (NAA) to the proposed project, the DEIR/EIS applies a significance criterion of a &lt; 5% increase in mean monthly water temperatures. As Cardno explains, a &lt;5% increase in mean monthly water temperature in the summer months (July- September) during CV steelhead rearing and/or in the fall during fall-run Chinook salmon spawning (primarily in November) would result in significant adverse impacts to these species. (Cardno Memo, p. 8) Regarding fall-run Chinook salmon, Cardno explains that "a &lt;5% temperature change in the existing spawning temperature at 60°F results in an increase of approximately 3.0°F, which would result in temperatures of approximately 63.0°F, well above the spawning threshold and mortality water temperature threshold for incubating eggs." (Cardno Memo, p. 8)</p> <p>So, and as Cardno explains, "although the temperature significance criteria were not exceeded in the BDCP EIS/EIR analysis, water temperatures under the No Action Alternative (NAA) and Proposed Action Alternative are above the threshold criteria for CV steelhead and Chinook salmon survival, particularly in the drier years (&gt;74°F in late summer months), and greatly exceed existing conditions. (Cardno Memo, p. 8)</p> <p>is a radical departure from existing habitat conditions and has large, significant, unmitigated impacts on anadromous fish in the LAR compared to</p>	<p>The new preferred alternative, Alternative 4A, has new operational criteria. Please see a description in Chapter 3, Description of Alternatives, Section 3.5.18, Alternative 4A. Upstream of the Delta, including the lower American River, there would be no differences Folsom Lake operational criteria between Existing Conditions, No Action Alternative, and all action alternatives, including Alternative 4A. For more information regarding project impacts to fish and aquatic resources and its associated mitigation measures please see Chapter 11 and associate appendices of the Final EIR/EIS.</p> <p>As discussed in response to comment 1613-15, the increase in water temperatures in the American River are due to low storage elevations in Folsom Lake in drier years, including years during which the CALSIM II model results indicate that Folsom Lake would be at "dead pool" conditions with surface water elevations that would affect releases from Folsom Lake to the American River. Please see responses to comments 1613-2 and 1613-4. While we agree that small changes (&lt;5%) in water temperature during already elevated temperatures could have an effect to the species, small differences between baseline and Alternative 4 scenarios in mean temperature model outputs are within the noise of the model. Therefore, we cannot conclude that effects would occur during Plan implementation.</p> <p>Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	17	<p>The flaws contained in the BDCP and DEIR/EIS's analysis on these issues [The No Action Alternative (NAA) and water temperature significance criteria] relates directly to one of the fundamental flaws with the models underlying BDCP itself -- that the NAA, or the environmental baseline, is not a realistic depiction of the environment that would actually exist without the proposed project. The BDCP itself recognizes as much. (Cardno Memo, p.</p>	<p>As discussed in response to comment 1613-15, the increase in water temperatures in the American River are due to low storage elevations in Folsom Lake in drier years, including years during which the CALSIM II model results indicate that Folsom Lake would be at "dead pool" conditions with surface water elevations that would affect releases from Folsom Lake to the American River. Please see responses to comments 1613-2 and 1613-4. The EIR/EIS compares the conditions under action alternatives with conditions under the</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>9)</p> <p>In any event, even modest temperature changes in the Lower American River that result from the proposed BDCP project could have devastating impacts on Central Valley steelhead and fall-run Chinook salmon, impacts that are not adequately disclosed or mitigated in the DEIR/EIS.</p>	<p>No Action Alternative and the Existing Conditions to determine the effects of the alternatives. Under CEQA and NEPA, DWR and Reclamation do not mitigate adverse conditions under ongoing Existing Conditions or under the future No Action Alternative.</p> <p>Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	18	<p>The Assurances sought by the BDCP violate California's No Injury Rule and contravene the Priority of Water Rights</p> <p>The BDCP describes the "assurances" the permittees will enjoy as a result of its implementation. The BDCP explains that the assurances provide "durability and reliability" to agreements reached with various agencies as part of the Plan's implementation. (BDCP, p. 6-28) Generally speaking, "assurances" provided to a permittee are guarantees of sorts that, if a permittee lives up to its end of the bargain in implementing an HCP, it will not be required to undertake any additional measures for the benefit of the species covered by the HCP.</p> <p>The BDCP casts these assurances in an interesting way. The BDCP suggests that, if the terms and conditions of the BDCP are being met, the federal government</p> <p>"will not require additional conservation or mitigation measures, including land, water (including quantity and timing of delivery), money, or restrictions on the use of those resources." (BDCP, p. 6-28)</p> <p>The BDCP recognizes that these "assurances" will not and cannot apply to USBR, so it is only DWR that will receive the assurance that it will not be required to commit any additional (water) resources for the benefit of species covered by the BDCP. However, the assurances that the BDCP seeks to attain contravene California water law, violating the No Injury Rule and disregarding the rule of priority of water rights. (Water Code, [Section] 1701.2) The no injury rule extends to those receiving water under contract. (State Water Resources Control Board Cases (2006) 136 Cal. App. 4th 674.)</p>	<p>Implementation of the Proposed Project (Alternative 4A) will require issuance of a change in Point of Diversion for both DWR and Reclamation by the State Water Resources Control Board who will require the project to not result in injury to other legal users of water or significant adverse effects to fish and wildlife due to implementation of the Proposed Project. For additional information related to the Petition before the SWRCB please refer to the SWRCB hearing webpage for the California Water Fix.</p> <p>Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS include in-depth, comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area.</p>
1613	19	<p>There are many reasons why the BDCP, as described in the draft documents, cannot satisfy Water Code section 1702's "no injury" requirement. If DWR is correct in the BDCP that constructing CM1 relieves it of any further obligation to forego any storage or diversion of water for species covered by the Plan, then any additional water required would have to be provided by other water right holders. As species may continue to decline in the foreseeable future, granting the water-right changes necessary to implement the BDCP, with the assurances that the Plan contemplates, could injure other legal users of water and could require other water users to forego diversions for the benefit of DWR's and USBR's diversions of water to BDCP proponents. In addition, as discussed elsewhere in these comments, the CVP/SWP operations incorporated in the No Action Alternative, as well as the "proposed project" Alternative 4, would involve drawing upstream reservoirs down to their dead pools in 10% of years and creating conditions that would prevent other water users from obtaining supplies to which they are entitled under contract rights and water rights.</p>	<p>As described in response to comment 1613-18, implementation of the Proposed Project will require issuance of a change in Point of Diversion for both DWR and Reclamation by the State Water Resources Control Board who will require the project to not result in injury to other legal users of water or significant adverse effects to fish and wildlife due to implementation of the Proposed Project. See also responses to comments 1613-2, 1613-4 and 1613-5.</p>
1613	20	<p>The BDCP would fail to meet Water Code section 1702's "no injury" requirement because of its uncertain impacts on the CVP. As discussed in greater detail in the North State Water Alliance Letter[BDCP1597], while the BDCP states that releases from Oroville Reservoir</p>	<p>As described in Appendix 5A, Section B, of the EIR/EIS flows to meet the Delta outflow criteria based upon the State Water Resources Control Board Decision 1641 and the 2008 USFWS biological opinion are provided by a combination of SWP and CVP reservoir releases and limitations on Delta exports. Under Alternatives 4</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>would be used to meet Delta outflow requirements associated with Alternative 4, BDCP does not even attempt to determine how those Oroville releases would affect CVP operations under the Coordinated Operating Agreement. Without an adequate analysis of who will be required to provide water needed for various species, it is impossible to ensure no injury to other legal users of water.</p>	<p>H2 and 4 H4, water to support enhanced spring Delta outflow was provided by additional water releases from reductions in Delta exports and releases from Lake Oroville. The enhanced spring Delta outflow was considered to be met outside of the Coordinated Operations Agreement which defines sharing criteria between the SWP and CVP. This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, Modeling Results. Under Alternative 4A, the enhanced spring Delta outflow was only met by reduction in Delta exports.</p> <p>Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS for a comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	21	<p>The BDCP statement that Department of Water Resources, a relatively junior water right holder, will not be required to forego any additional diversions to support environmental needs is contrary to California law. (City of Barstow v. Mojave Water Agency (2000) 23 Cal. 4th 1224, 1250; El Dorado Irrigation District v. State Water Resources Control Board (2006) 142 Cal. App. 4th 937, 943) In addition to this basic principal, the so-called area-of-origin statutes [footnote 2: The area-of-origin statutes include Water Code sections 10500 et seq. and 11460 et seq.] mandate that water use within the area of origin - in this case Northern California - not be reduced due to the export of water for use outside the area of origin. Any attempt to subvert the area-of-origin statutes, whether through a private HCP process (via regulatory assurances) or through the CEQA/NEPA process, will result in clear violations of those statutes intended to protect areas of origin, including the protection of Northern California water supplies from injury by export projects.</p>	<p>As described in response to comment 1613-18, implementation of the Proposed Project will require issuance of a change in Point of Diversion for both DWR and Reclamation by the State Water Resources Control Board who will require the project to not result in injury to other legal users of water or significant adverse effects to fish and wildlife due to implementation of the Proposed Project. Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS for a comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area. Please see also Master Response 26 for discussion of Area of Origin.</p> <p>Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	22	<p>The BDCP Lacks an Adequate and Reliable Source of Funding</p> <p>As described in greater detail in the North State Water Alliance Letter[BDCP1597], under both State and federal law, an HCP must ensure that there is adequate funding to implement its conservation actions. The BDCP fails to meet this standard. Potential sources of funding identified in the BDCP are far too speculative to form the basis of the regulatory assurances the BDCP proponents seek. BDCP, as currently proposed, depends not only on funding from the current proposed bond - which is subject to amendment and general election vote, and has already been delayed four years - but also a second, as yet undefined, bond and equally vague federal funding. (BDCP, pp. 8-84 to 8-85, 8-109 to 8-110)</p> <p>Regarding a bond as a potential funding source, BDCP attempts to analyze the success of prior bonds, concluding that passage of the current bond is likely and others likely would be passed during the Plan's implementation period. (BDCP, p. 8-85) Yet bond passage is not assured and any funding relied upon from yet-to-be-passed bond measures is purely speculative, as the voters could reject the bonds. Indeed, and as the BDCP recognizes, the current bond proposal already has been delayed multiple years because the economic climate was not favorable for passage.</p> <p>The project proponents must demonstrate that secure funding is available for all aspects of the BDCP. Providing only the conveyance pieces of the BDCP will not achieve the goals of the BDCP and will create the significant and unacceptable risk that parties, other than the BDCP permittees, will be left paying for the protections and assurances enjoyed by the BDCP permittees. Doing so would inappropriately shift the impacts of the BDCP, not only to upstream water users, but also to the public generally.</p>	<p>Please see Master Response 5 for a discussion of the BDCP effects analysis and funding.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1613	23	<p>The DEIR/EIS Does Not Fully Account for Socioeconomic Impacts in Placer County</p> <p>The DEIR/EIS is based on operations of Folsom Reservoir that would have significant socioeconomic effects, but does not describe or analyze those effects or their environmental consequences. The hydrologic modeling on which the DEIR/EIS's environmental analysis is based assumes that USBR would, and would be allowed, to operate Folsom Reservoir so that it would be incapable of providing water supplies for communities located adjacent to the reservoir in approximately 10% of years. Hydrologic modeling of all of the DEIR/EIS's action alternatives then is based on that assumption. Also, the DEIR/EIS's hydrologic modeling probably underestimates the impacts of BDCP implementation on Folsom Reservoir storage because that modeling does not account for adjustments in responsibilities for Delta conditions under Coordinated Operating Agreement and also does not depict scenarios drier than the 90% exceedance scenario. The current water year is drier than the 90% exceedance scenario.</p> <p>Any scenario in which Folsom Reservoir would be unable to provide the primary water supply for the 500,000 people who currently rely on the reservoir, and increased populations through the life of the BDCP Permit term, would be highly likely to have significant socioeconomic impacts. Inadequate water supplies discourage economic growth and can lead to depopulation of areas that previously relied on the supplies that have become inadequate. These socioeconomic effects would be significant in themselves and also would likely generate significant resulting environmental effects. If the areas near Folsom Reservoir did not have adequate water supplies, then there would likely be resulting growth inducement in other parts of the Sacramento region with more reliable water supplies. In particular, such a shift probably would increase demands for development in parts of the Sacramento region with reliable groundwater, which also tend to be areas with agricultural and vernal pool resources and sensitive species like the giant garter snake. In addition, adverse socioeconomic effects in the communities adjacent to Folsom Reservoir could affect the availability facilities and amenities that support recreational opportunities on the reservoir, which is one of the most heavily used resources in the State Parks system.</p> <p>Given the CVP operations assumed by the DEIR/EIS's hydrologic modeling and continued through the DEIR/EIS's analysis of all alternatives' effects, NEPA and CEQA require that the DEIR/EIS analyze socioeconomic effects in the Placer County region and indirect environmental effects on at least hydrological, terrestrial and agricultural resources. The DEIR/EIS's socioeconomic analysis, however, is limited to the statutory Delta. (DEIR/EIS, pp. 16-1 - 16-29) The DEIR/EIS fails to analyze the socioeconomic effects within the Placer County region in violation of NEPA and CEQA.</p>	<p>Please see responses to comments 1613-2 and 1613-4. It is anticipated that Reclamation would implement actions during these conditions, such as they implemented during the recent drought emergency, to continue to deliver water from Folsom Lake. However, it also anticipated that during drought emergencies, all water users in California would be required to reduce overall water consumption, including groundwater.</p> <p>The dead pool conditions occur in the No Action Alternative as compared to the Existing Conditions because the model includes changes in precipitation without making changes in water diversion patterns. The EIR/EIS analysis considers changes between the frequency of dead pool conditions under the alternatives and the No Action Alternative (both with the same climate change assumptions) to determine if the changes are adverse or beneficial. The dead pool conditions occur in drier years when it is anticipated that emergency conditions could occur that would curtail both surface water and groundwater use throughout California. As described in response to comment 1613-5, reservoir levels would be similar to the No Action Alternative. Please see Chapter 15, Recreation of the Final EIR/EIS for analysis of impacts to recreation. Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS for a comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area. .</p> <p>Deliveries of senior water rights in the American River watershed would be the same under the No Action Alternative and all action alternatives, and greater than under the Existing Conditions due to projected population growth that would occur with or without the Project. In additions deliveries of CVP water contract water in the American River watershed over the long-term (including during drier years) would be similar under the action alternatives as compared to the No Action Alternative (which reflects the effects of the action alternatives without changes due to climate change, sea level rise, or population growth). Therefore, no changes in groundwater conditions were assumed to occur under the action alternatives as compared to the No Action Alternative.</p> <p>Reductions in deliveries of CVP water contract water in the American River watershed under the No Action Alternative are projected to occur as compared to Existing Conditions due to climate change, sea level rise, and population projections. These reductions also would occur under the action alternatives as compared to the Existing Conditions. Reduced CVP water deliveries would result in changes in groundwater conditions, including reduced groundwater elevations. However, changes associated with increased potential for groundwater withdrawals under the No Action Alternative and action alternatives as compared to Existing Conditions due to climate change, sea level rise, and population growth that would occur with or without the project are not caused by the action alternatives/Project and are not mitigated under the Project.</p>
1613	24	<p>Placer County Water Agency agrees with concerns raised by the North State Water Alliance in its comment letter [BDCP1597], that the draft Implementing Agreement (IA) does not meet the requirements of the Endangered Species Act and Natural Community Conservation Policy Act. As noted by NSWA, the IA is incomplete and does not provide the public with a clear list and explanation of obligations and assurances that will ultimately be included in a final IA. Of particular note is the lack of participation in the IA by the U.S. Bureau of Reclamation, the lack of any tangible funding assurances, or clear responsibility for implementing the BDCP.</p>	<p>This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4) required under the California Natural Community Conservation Planning Act (NCCCPA), and routinely executed under the ESA Section 10 (HCP) permitting process. Since the current proposed project (Alternative 4A) is no longer a NCCP or HCP, an implementing agreement was not released with the RDEIR/SDEIS or final EIR for the project. For more information on the primary issues being raised with regard to the IA, as well as a discussion of the current status of the IA and funding, please see Master Response 5. Please also note that all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.</p>
1613	25	<p>Both the BDCP and the DEIR/EIS fail in their fundamental purpose. The BDCP falls short of</p>	<p>Please note, as described in response to comment 1613-2, the BDCP is no longer the preferred alternative.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		improving the reliability of water supplied through the Sacramento-San Joaquin Delta while improving ecosystem health and ensuring long-term protection of threatened and endangered fish species. The DEIR/EIS is fundamentally deficient. Significant modeling flaws, underestimation of upstream demands, adverse impacts on American River fisheries, improper assumptions regarding climate change, and the attempted subversion of California water law and the area-of-origin statutes demand that the BDCP and its supporting documents be substantially revised to properly inform the public of the real impacts of the BDCP. Once the documents are revised, they should be recirculated so the public can be provided with a meaningful opportunity to understand the true impacts of the proposed project.	The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. Please see also response to comment 1613-5 and other responses in this letter. Please see Master Response 17 and Chapters 11 and 12 and associated appendices of the Final EIR/EIS for a comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the Plan Area. Please see also Master Response 26 with regards to Area of Origin.
1613	26	[ATT1:] Memo from MBK Engineers, "Technical Comments on Bay-Delta Conservation Plan Modeling," dated July 11, 2014	This comment describes an attachment to the comment letter. See responses to comments 1613-27 through 1613-56 regarding comments contained in this attachment. Please refer also to Master Response 30.
1613	27	<p>[ATT1:] The Reviewers' analysis of the BDCP modeling is summarized in categories: (1) assessment of general assumptions and operations; (2) assessment of American River demands; (3) assessment of climate change assumptions, implementation, and effects; (4) assessment of the assumptions and operational criteria for inclusion of the new BDCP facilities. The issues discussed in (1), (2) and (3) are relevant for all modeling scenarios, both baseline scenarios that do not include BDCP and with project scenarios that evaluate BDCP or the Alternatives. The issues discussed in (4) are specific to the inclusion of the BDCP as defined in the draft BDCP plan and identified as Alternative 4 in the Draft EIR/EIS.</p> <p>This review focuses on water operations modeling using CalSim II. CalSim II is a computer program jointly developed by DWR and Reclamation. CalSim II presents a comprehensive simulation of State Water Project (SWP) and Central Valley Project (CVP) operations, and is used by DWR as a planning tool to predict future availability of water for the SWP. CalSim II is widely recognized as the most prominent water management model in California, and it is generally accepted as a useful and appropriate tool for assessing the water delivery capability of the SWP and the CVP.</p> <p>Broadly speaking, CalSim II estimates, for various times of the year, how much water will be diverted, how much will serve as instream flows (e.g., flow in the rivers at various locations, such as Delta outflow), and how much will remain in the reservoirs. Within the context of the BDCP, CalSim II is used to estimate the amount of water that will be diverted from BDCP's proposed North Delta Diversion (NDD) facilities. Thus, for BDCP, the CalSim II model estimates how much water will be diverted at the NDD facilities, how much flow will remain in the Sacramento River below Hood (the approximate location of the NDD facilities), how much water will be diverted through the existing South Delta Diversion (SDD) facilities at Tracy, how much flow will leave the Delta by flowing out to the Bay, and how much water will remain in storage in upstream reservoirs (including Folsom Reservoir). The location and timing of the diversion and the amount of water remaining instream and in reservoirs are significant because they can cause impacts on species, water quality degradation, and the like.</p> <p>The coding and assumptions included in the CalSim II model drive the results it yields. Data and assumptions, such as the amount of precipitation runoff at a certain measuring station or the demand for water by specific water users are input into the model. Criteria used to operate the CVP and the SWP (including current regulatory requirements) are included in</p>	<p>The portions of the comment related to the basis and use of CALSIM II are consistent with information contained in Appendix 5A of the Final EIR/EIS. However, as described in Appendix 5A, the CALSIM II model and all subsequent models that rely upon CALSIM II output cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate basic changes between different scenarios, such as conditions under the action alternatives as compared to the Existing Conditions and the No Action Alternative. In general, changes in assumptions or model logic that are the same in all scenarios evaluated by the models would not affect the results of the comparative analyses.</p> <p>The operational criteria for the CALSIM II model runs are presented in Appendix 5A, Sections A and B, of the Final EIR/EIS. Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>the model as assumptions; because of the volume of water associated with the CVP and SWP, these operational criteria significantly influence the model's results. Additionally, operational logic is coded into the CalSim II model to simulate how DWR and Reclamation would operate the system under circumstances for which there are no regulatory or otherwise definitive rules (e.g., when to move water from upstream storage to south of Delta storage). This attempt to specify (i.e., code) the logic sequence and the relative weighting that humans will use as part of their "expert judgment" is a critical element to the CalSim II model.</p> <p>The model's ability to reliably predict effects of a proposed action depends on the accuracy of its coding and its representation of operations criteria. In other words, the model's results will be only as good as its data, coding, assumptions, and judgment and the knowledge of the modelers. For this reason, a detailed operating plan of existing facilities and the proposed facility is essential to create an accurate model of how a proposed action will affect existing water operations. In reviewing the BDCP modeling, it became apparent that coding errors and operating assumptions are inconsistent with the actual purposes and objectives of the CVP and SWP, thus limiting the utility and accuracy of the results.</p> <p>The CalSim II model is the foundational model for analysis of the BDCP, including the effects analysis in the Draft BDCP and the impacts evaluation in the Draft EIR/EIS. Results from CalSim II are used to examine how water supply and reservoir operations are modified by the BDCP, and the results are also used by subsequent models to determine physical and biological effects, such as water quality, water levels, temperature, Delta flows, and fish response. Any errors and inconsistencies identified in the underlying CalSim II model are therefore present in subsequent models that estimate impacts on water quality, hydrodynamics in the Delta, economics, hydropower, and other parameters and adversely affect the results of analyses based on those subsequent models.</p>	
1613	28	<p>[ATT1:] No Action Alternative</p> <p>Water operations modeling assumptions used in CalSim II for the BDCP No Action Alternatives (NAA) are defined in the December 2013 Draft BDCP [footnote 1: The detailed assumptions are stated in BDCP draft EIR/EIS Appendix 5A.] and associated draft EIR/EIS. Those assumptions include assumed changes to hydrology cause by climate change, so the NAA includes that assumed climate change. Assumptions affecting modeling results for Folsom Reservoir and the American River are the focus of this review. Because Folsom Reservoir is operated as an integral part of the CVP, system-wide assumptions affect conditions on the American River and these assumptions are included in this review. Demands for American River supplies also influence American River storage and flow conditions, therefore demand assumptions are included in this review. Because climate change assumptions not only affect system-wide operations, but have a significant influence on American River operations, these assumptions are reviewed to understand the basis for the NAA model results. In addition to input assumptions, the NAA operation depicted by CalSim II is reviewed for reasonableness.</p> <p>Each of the NAA assumes the same regulatory requirements, generally representing the existing regulatory environment at the time of study formulation (February 2009), including Stanislaus ROP NMFS BO (June 2009) Actions III.1.2 and III.1.3, Trinity Preferred EIS Alternative, NMFS 2004 Winter-run BO, NMFS BO (June 2009) Action I.2.1, SWRCB WR90-5, CVPIA (b)(2) flows, NMFS BO (June 2009) Action, American River Flow Management NMFS BO (June 2009) Action II.1, no SJRRP flow modeled, Vernalis SWRCB D1641 Vernalis flow and</p>	<p>Please note that the study period for the Proposed Project as presented in the Final EIR/EIS extends through approximately 2030 for construction of the conveyance facilities.</p> <p>As described in response to comment 1613-27, the portions of the comment related to the basis and use of CALSIM II are consistent with information contained in Appendix 5A of the EIR/EIS. However, as described in Appendix 5A, the CALSIM II model and all subsequent models that rely upon CALSIM II output cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate basic changes between different scenarios, such as conditions under the action alternatives as compared to the Existing Conditions and the No Action Alternative. In general, changes in assumptions or model logic that are the same in all scenarios evaluated by the models would not affect the results of the comparative analyses. The assumptions for the No Action Alternative, including water demands, were established using information that was available as of 2009 when the Notice of Preparation and Notice of Intent were published.</p> <p>The portions of the comment related to American River Basin Demands address Alternative 4 or analysis contained within the Draft EIR/EIS and draft BDCP Effects Analysis at Year 2060 at the end of the period for the proposed HCP and NCCP permits. As described above, the study period for the Proposed Project and associated No Action Alternative as presented in the Final EIR/EIS extends through approximately 2030 when the construction of the conveyance facilities is anticipated.</p> <p>As described in response to comment 1613-5, reservoir levels would be similar to the No Action Alternative. Increased water demand that occurs under the No Action Alternative and all action alternatives also effect operations of Folsom Lake with or without the Project. See response to comment 1613-10 for discussion of</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>WQ and NMFS BO (June 2009) Action IV.2.1, Delta D1641 and NMFS Delta Actions including Fall X2 FWS BO (December 2008) Action 4, Export restrictions including NMFS BO (June 2009) Action IV.11.2v Phase II, OMR FWS BO (December 2008) Actions 1-3 and NMFS BO (June 2009) Action IV.2.3v. The modeling protocols for the recent USFWS BO (2008) and NMFS BO (2009) have been cooperatively developed by Reclamation, NMFS, U.S. Fish and Wildlife Service (USF&amp;WS), California Department of Fish and Wildlife (CDF&amp;W), and DWR.</p> <p>American River Basin Demands</p> <p>BDCP model inputs were reviewed to understand demand assumptions for water purveyors in the American River Basin. Table 1 [ATT1:ATT1] is a summary of average annual demands used in CalSim II by the BDCP modeling at both the existing (Existing Conditions) and future (NAA) levels of development. The Existing Conditions model run was not used in the analysis of project effects, but is provided for reference. A single level of demand was used to represent the two future conditions simulated, early long term (ELT) and late long term (LLT) that represent planning horizons of approximately 2025 and 2060, respectively.</p> <p>There are several problems with the demands summarized in Table 1. Existing Conditions are approximately representative of current demands. Future demands for Placer County Water Agency (PCWA) are not representative of current projections. PCWA diverts water at the American River Pump Station and delivers water into Folsom Reservoir for diversion by San Juan Water District (SJWD), Sacramento Suburban Water District (SSWD), and the City of Roseville (Roseville). The total projected annual demand for these four entities is approximately 120,000 acre-feet. Demands represented in the BDCP modeling total between 64,000 and 81,000 acre-feet annually, depending on the annual demand of SSWD. One error that contributes to underestimating PCWA's future demand is the assumption that Roseville will take only 5,000 acre-feet of their 30,000 acre-feet of contract supply from PCWA. Most future level of development CalSim II studies, such as those produced for the 2013 State Water Project Delivery Reliability Report, assume Roseville's demand for water from PCWA is 30,000 acre-feet.</p> <p>Roseville's 2010 urban water management plan projects that Roseville will have a demand for its 30,000 acre-feet per year of PCWA water by 2025. [footnote 2: Roseville's 2010 urban water management plan is available at <a href="https://www.roseville.ca.us/eu/water_utility/water_efficiency/plan.asp">https://www.roseville.ca.us/eu/water_utility/water_efficiency/plan.asp</a>]</p>	<p>how additional population growth and increased water demand. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>
1613	29	<p>[ATT1:] The BDCP modeling assumes that demands will increase significantly over the next 11 years, from Existing Conditions to early long term at approximately 2025, but then remain unchanged over the next 35 years to late long term conditions in 2060. Issues with this assumption are in part illustrated by reference to the City of Sacramento's most recent (2010) Urban Water Management Plan [UWMP] which identifies water demands continuing to increase as a result of development through at least 2035. For example, that UWMP projects total year 2030 demands within the retail service area and wholesale demands to be 250,000 acre-feet and year 2035 demands to be 261,000 acre-feet.</p>	<p>See response to comment 1613-28.</p>
1613	30	<p>[ATT1:] A demand-related issue with the NAA and the with-Project scenarios is that BDCP modeling does not simulate diversion limitations at the Fairbairn water treatment plant when releases from Nimbus Reservoir are below the "Hodge Flows" limits that apply to the City of Sacramento's diversions at Fairbairn. These limitations are included as terms in the City of Sacramento water right permits, and therefore are known and should be accurately reflected in the BDCP modeling. [footnote 3: Water right permit numbers 11358, 11359,</p>	<p>With respect to the portion of the comment related to "Hodge Flow" limits, the modeling results presented in the Final EIR/EIS indicate that the American River flows below Nimbus Dam under the Alternative 4A are below the Hodge criteria at similar or lower probability than the No Action Alternative under all months except August and September. Even though the flows are below the Hodge criteria for a few additional years under Alternative 4A compared to the No Action Alternative, City of Sacramento deliveries were found to be similar under both scenarios. The frequency at which the American River flows</p>

DEIRS Ltr#	Cmt#	Comment	Response
		11360, and 11361.] This omission affects modeling of flows in the lower American River downstream of Fairbairn and simulated diversions at Fairbairn and the Sacramento River Intake.	<p>at H street under Alternative 4A are less than 500 cfs is similar in frequency to the conditions under the No Action Alternative. The changes in the Folsom Lake cold water pool and releases under Alternative 4A compared to the No Action Alternative and its fishery effects were analyzed in Chapter 11 and associated appendices of the Final EIR/EIS.</p> <p>It should be noted that 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 Action Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A. It should be noted that the modeling used in the EIR/EIS must be used in a comparative manner and not to define absolute values. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>
1613	31	[ATT1:ATT1:] Table 1. American River Basin Demand Assumptions	This comment describes a table in the attachment to the comment letter. Please see response to comment 1613-28 regarding comment referencing this table.
1613	32	<p>[ATT1:] Analysis presented in the BDCP draft plan and draft EIR/EIS attempts to incorporate the effects of climate change at two future climate periods: ELT [early long term] at approximately the year 2025; and LLT [late long term] at approximately 2060. Although BDCP modeling includes both the ELT and LLT, the EIR/EIS relies on the LLT and only includes the ELT in Appendix 5. As described in the BDCP draft plan and draft EIR/EIS [footnote 4: BDCP EIR/EIS Appendix 5A, Section A and BDCP HCP/NCCP plan Appendix 5.A.2], other analytical tools were used to determine anticipated changes to precipitation and air temperature that is expected to occur under ELT and LLT conditions. Projected precipitation and temperature were then used to determine how much water is expected to flow into the upstream reservoirs over an 82- year period of variable hydrology; these time-series were then input to the CalSim II model.</p> <p>A second aspect of climate change, the anticipated amount of sea level rise, is incorporated into the CalSim II model by modifying a subroutine that determines salinity within the Delta based on flows within Delta channels. Effects of sea level rise will manifest as a need for additional outflow when Delta water quality is controlling operations to prevent seawater intrusion. In this technical memorandum, we do not critique the climate change assumptions themselves, except in the limited manner described below. [footnote 5: This should not be read to imply that climate change assumptions are reasonable or considered correct or incorrect; the limited review reflects the scope of this memorandum.] This review is limited to evaluating how modified flows were incorporated into CalSim II and whether the operation of the CVP and SWP in response to modified flows and modified flow-salinity relationship is reasonable for ELT and LLT conditions. This review focuses on assumed</p>	<p>The portions of the comment related to the basis and use of CALSIM II are consistent with information contained in Appendix 5A of the Final EIR/EIS. During the preparation of the EIR/EIS, a sensitivity analysis was completed, as presented in Appendix 5A, Section D.3, Climate Change Modeling, to simulate conditions under the No Action Alternative and Alternative 1 under the five climate change scenarios. The operations results from these simulations were analyzed to understand the range of uncertainty in the incremental changes that would occur with a range of climate change scenarios. The sensitivity analysis indicated that Alternative 1 results would change with climate change scenarios; however, the incremental differences between the No Action Alternative under a specific climate change scenario and Alternative 1 under the same specific climate change scenario were consistent. Because the EIR/EIS only evaluates the incremental differences, and not absolute values, between the Existing Conditions and the No Action Alternative and the action alternatives, the incremental changes appear to be similar under a range of climate change scenarios. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>underlying hydrology and simulated operation of the CVP and SWP, assumed regulatory requirements, and the resultant water deliveries.</p> <p>To assess climate change, the three without Project ("baseline" or "no action") modeling scenarios were reviewed: No Action Alternative (NAA) [footnote 6: NAA is also called the Existing Biological Conditions number 2 (EBC-2) in the Draft Plan.], No Action Alternative at the Early Long Term (NAA - ELT), and No Action Alternative at the Late Long Term (NAA -LLT). Assumptions for NAA, NAA-ELT, and NAA-LLT are provided in the Draft EIR/EIS's modeling appendix [footnote 7: BDCP EIR/EIS Appendix 5A, Section B, Table B-8.]. The only difference between these scenarios is the climate-related changes made for the ELT and LLT conditions (Table 2 [ATT1:ATT2]).</p> <p>Differences between the NAA and NAA-ELT reveal effects of climate change assumptions under ELT conditions; similarly, differences between the NAA and NAA-LLT reveal effects of climate change assumptions under LLT conditions.</p> <p>There is considerable uncertainty regarding the effects of climate change on future temperature and precipitation. Analysis of only one potential future condition at different planning horizons does not cover the range of potential effects. While other analyses attempt to bracket the range of climate change effects (e.g. 2008 OCAP analysis [footnote 8: USBR, 2008. Biological Assessment on the Continued Long-term Operations of the Central Valley Project and the State Water Project, Appendix R Sensitivity of Future Central Valley Project and State Water Project Operations to Potential Climate Change and Associated Sea Level Rise, U.S. Bureau of Reclamation, July 2008.]) on proposed projects, BDCP's entire effects analysis is based on a single climate change scenario. Standard practice for modeling CVP and SWP operations is to impose future demand projections on historical hydrology to develop No Action Alternatives. BDCP did not follow the standard practice of evaluating effects of BDCP using historical hydrology, but relied solely on one climate change scenario to form the basis of their analysis.</p>	
1613	33	[ATT1:ATT2:] Table 2. Scenarios Used to Evaluate Climate Change	This comment describes a table in the attachment to the comment letter. Please see response to comment 1613-32 regarding comment referencing this table.
1613	34	<p>[ATT1:] The significance of changed hydrology between the three without project baselines (NAA [No Action Alternative], NAA-ELT [NAA-early long term], and NAA-LLT [NAA-late long term]) is illustrated below in Figure 1 [ATT1:ATT3]. The figure illustrates the projected combined inflow of Trinity, Shasta, Oroville, and Folsom Reservoirs under the NAA and the change relative to the NAA for the NAA- ELT and NAA-LLT baselines. BDCP baselines show Trinity, Shasta, and Oroville inflow are projected to increase overall, but with a significant shift from spring runoff to winter runoff and increases in wetter years with decreases in drier years.</p> <p>The effect of assumed climate change on average annual Folsom Reservoir inflow in the NAA-ELT scenario is minor, but causes decreases in inflow of about 70 thousand acre feet in the NAA-LLT scenario. The spring to winter shift in runoff is also projected for Folsom Reservoir inflow. Figure 2 is an illustration of Folsom inflow under the NAA and the change relative to NAA for the NAA-ELT and NAA-LLT baselines. To properly incorporate climate change into modeling of Folsom Reservoir and the American River, climate change effects must be applied to flows and reservoirs upstream from Folsom, which was not done. There is significant storage capacity in the upper American River watershed in Placer County Water Agency's Middle Fork Project and the Sacramento Municipal Utility District's (SMUD)</p>	As described in Chapter 5, Water Supply, the EIR/EIS analyses assume continued implementation of regulatory requirements in accordance with the requirements under the CEQA definition of Existing Conditions and under the NEPA definition of the No Action Alternative. Changes in operational and/or regulatory requirements due to climate change and sea level rise would only occur following detailed analyses, including project-specific CEQA and NEPA analyses and ESA and CESA analyses. Following adoption of changes to the operational or regulatory requirements by the State and federal governments, DWR and Reclamation would need to determine if changes in the SWP and CVP would be necessary. These changes are considered to be speculative and are not included in the No Action Alternative or in the Cumulative Impact Analysis. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.

DEIRS Ltr#	Cmt#	Comment	Response
		Upper American River Project. The operation of Folsom is significantly affected by changes in upstream conditions and operations. [footnote 9: SMUD's Upper American River Project alone is estimated to have water storage capacity of about 430,000 acre-feet. "The History of SMUD's UARP", Sacramento Municipal Utility District (2001).] Because climate change in BDCP modeling is imposed on the American River by adjusting only the inflow to Folsom only, however, the effect on the American River is likely misrepresented in the BDCP NAA-ELT and NAA-LLT scenarios.	
1613	35	[ATT1:ATT3:] Figure 1. Inflow to Trinity, Shasta, Oroville, and Folsom Reservoirs -- NAA, NAA-ELT and NAA-LLT	This comment describes a figure in the attachment to the comment letter. Please see responses to comments 1613-34 and 1613-37 regarding comments referencing this figure.
1613	36	[ATT1:ATT4:] Figure 2. Projected Inflow to Folsom Reservoir -- NAA, NAA-ELT and NAA-LLT	This comment describes a figure in the attachment to the comment letter. Please see responses to comments 1613-34 and 1613-37 regarding comments referencing this figure.
1613	37	<p>[ATT1:] Comparison of inflow changes illustrated in Figure 1 [ATT1:ATT3] and Figure 2 [ATT1:ATT4] show the effects of climate change are large in the American River Basin relative to changes in other river basins. Total changes illustrated in Figure 1 show wetter conditions in wet years and drier conditions in dry years when considering the four basins together. However, climate change in the American River Basin for the late long term shows drier conditions in all year-types. Additionally, a large percentage of the dry and critical year inflow reduction, 57 and 37 percent respectively, for the combined four basins occur in the American River Basin. By comparison, runoff from the American River at Folsom is approximately 20 percent of the sum of runoff of the Trinity, Sacramento, Feather, and American rivers.</p> <p>Changes in Folsom inflow can affect American River operations in a variety of ways, such as changes in lower American River flows based on the June 2009 National Marine Fisheries Service Biological Opinion Action II.1 (American River Flow Management), availability of water to Municipal and Industrial purveyors in the American Region Basin, and flood control operations in Folsom Reservoir. Climate change is imposed on the American River Basin by adjusting Folsom inflow without adjustments to operations upstream from Folsom. Lower American River flow requirements are calculated and adjusted using several different indices that include forecasted inflow to Folsom, end-of-September storage in Folsom and upstream reservoirs, forecasted Folsom storage, and the Sacramento River Index. Water deliveries from Folsom are partially based on water supply in upstream reservoirs. Required flood reservation space in Folsom Reservoir is affected by storage in upstream reservoirs. Because Folsom Reservoir operation is affected by storage conditions upstream from Folsom, climate change must be applied to the entire American River basin to properly analyze conditions with climate change.</p>	Flows in the American River watershed were modified to reflect climate change. However, as described in Chapter 5 of the EIR/EIS analyses assume continued implementation of regulatory requirements in accordance with the requirements under the CEQA definition of Existing Conditions and under the NEPA definition of the No Action Alternative. Changes in operational and/or regulatory requirements due to climate change and sea level rise would only occur following detailed analyses, including project-specific CEQA and NEPA analyses and ESA and CESA analyses. Following adoption of changes to the operational or regulatory requirements by the State and federal governments, DWR and Reclamation would need to determine if changes in the SWP and CVP would be necessary. These changes are considered to be speculative and are not included in the No Action Alternative or in the Cumulative Impact Analysis. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.
1613	38	[ATT1:] For Folsom and other upstream CVP and SWP reservoirs, the shift of in timing of inflows along with a continuing need to satisfy downstream environmental requirements and demands significantly affects carryover storage. Because of climate change's assumed effect on hydrology and the lack of CVP/SWP operational adaptations in the BDCP modeling, the CVP and SWP simply cannot satisfy water demands and regulatory criteria imposed on them in the NAA-ELT [No Action Alternative-early long term] and NAA-LLT [No Action Alternative-late long term] modeling scenarios. Figure 3 [ATT1:ATT5] illustrates change in carryover storage in Folsom Reservoir. The relatively high frequency (approximately 10% of time) of minimum storage occurring at Folsom Reservoir leads us to question whether the NAAs reflect credible or defensible operations. The projected occurrences of low and dead	The "dead pool" conditions presented in the CALSIM II model results in the EIR/EIS are developed from calculated monthly average reservoir volumes. Because the model only calculates and reports SWP and CVP water operations at an average monthly basis, the model cannot simulate changes that occur on a weekly basis by water users and SWP and CVP operations. In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. Instead the model includes average operating criteria for all dry periods, and does not reflect specific changes. Therefore, it is anticipated that Reclamation would implement actions during these conditions, such as they implemented during the recent drought emergency, to continue to deliver water from Folsom Lake. These emergency operations would require separate engineering and environmental studies. Please see also responses to comments 1613-2 and 1613-4. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water

DEIRS Ltr#	Cmt#	Comment	Response
		storage conditions projected by the BDCP modeling result in severe reduction of flow available to sustain habitat in the Lower American River and severe reductions in water supply reliability.	Supply, and associated appendices for additional information on modeling and modeling results.
1613	39	[ATT1:ATT5:] Figure 3. Folsom Reservoir Carryover Storage	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-38 regarding comment referencing this figure.
1613	40	[ATT1:] Assumed effects of climate change and lack of adaptation reduces CVP water supply allocations to American River CVP Water Service Contractors. Figure 4 [ATT1:ATT6] contains exceedance probability plots of CVP Municipal and Industrial allocations for the NAA [No Action Alternative], NAA-ELT [NAA-early long term], and NAA-LLT [NAA-late long term] scenarios. Full allocations are made 40% of the time under the NAA, this is reduced to about 30% in the NAA-ELT, and full allocations are made about 25% of the time in the NAA-LLT. The occurrence of 50% allocation increases from about 4% in the NAA to about 7% in the NAA-ELT and to about 12% in the NAA-LLT. In addition to reduced water service contract allocations, water supply allocations under any right cannot be satisfied due to low storage levels in Folsom Reservoir and low flow in the Lower American River. It is not physically possible to divert water for M&I use from Folsom Reservoir when reservoir storage drops below about 100,000 acre-feet because, at that level, the M&I intake in the reservoir would be dry. In addition, flows in the lower American River below about 500 cfs make it impossible for the City of Sacramento to divert water at its Fairbairn diversion. The water-supply and other effects of these physical conditions occurring in the NAA scenarios are not identified or evaluated in the draft BDCP EIR/EIS.	Please see responses to comments 1613-2, 1613-4 and 1613-34. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.
1613	41	[ATT1:ATT6:] Figure 4. CVP North of Delta M&I Water Service Contract Allocation	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-40 regarding comment referencing this figure.
1613	42	[ATT1:] If climate change were to result in significant inflow changes, it is highly likely that certain underlying operating criteria such as instream flow requirements and flood control diagrams would also require changes. For example, the CVP and SWP are unlikely to draw reservoirs to dead pool as often as the NAAs [No Action Alternatives] depict. The NAA-ELT [NAA-early long term] and NAA-LLT [NAA-late long term] model scenarios show that, in 10% of years, Folsom Lake levels would drop to a "dead pool" condition where diversions to Municipal and Industrial use from the reservoir would not be physically possible. As a result, in this scenario, the modeling implies that American River M&I deliveries from the reservoir would be below what is needed for public health and safety in 10% of years. Additionally, low storage in Folsom would lead to water temperature conditions that would likely be detrimental for listed species and not achieve the temperature objectives in the June 2009 National Marine Fisheries Service Biological Opinion Action II.2 (Lower American River Temperature Management). In addition to affecting fishery habitat in the lower American River, increases in temperature cause problems with water treatment for urban water supplies. In short, the NAA-ELT and NAA-LLT do not provide reasonable underlying CVP and SWP operations on which to superimpose the BDCP and evaluate effects of Alternatives.  In the Reviewers' opinion, the CalSim II operations depicted in the NAA BDCP modeling that incorporate climate change do not represent a reasonably foreseeable future operation of the CVP and SWP. Although an argument is typically made that these NAAs will be used in a comparison analysis with Project Alternatives tiering from these NAAs, the Reviewers believe that the depicted NAA operations are so fundamentally flawed that there can be no confidence even in the comparative results. Therefore, results of the depicted operations	Please see responses to comments 1613-2 through 1613-4, 1613-34 and response to comment 1613-37. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>are inappropriate as the foundation of technical analysis of a Project Alternative. As such, although the modeling approach may provide a relative comparison between equal foundational operations, little confidence can be placed in the computed differences shown between the NAA and Project Alternative Scenarios.</p>	
1613	43	<p>[ATT1:] Conclusions Regarding No Action Alternatives</p> <p>BDCP No Action Alternatives [NAAs] include errors and omissions in American River demands and Fairbairn diversion limitations. However, the most significant issues with the NAAs are in operation of the CVP/SWP with climate change. The BDCP Model uses assumed future climate conditions that obscure the effects of implementing the BDCP. The future conditions assumed in the BDCP model include changes in precipitation, temperature, and sea level rise. The result of these assumptions is that BDCP's modeled changes in water project operations and subsequent environmental impacts are caused by undefined combinations and inter-relations of three different factors: (1) sea level rise; (2) climate change; and (3) implementation of the alternative that is being studied.</p> <p>The inclusion of climate change, without adaptation measures, results in insufficient water needed to meet all regulatory objectives and user demands. For example, the BDCP Model results that include climate change indicate that during droughts, water in reservoirs is reduced to the minimum capacity possible. Reservoirs have not been operated like this in the past during extreme droughts and the current drought also provides evidence that adaptation measures are called for long in advanced to avoid draining the reservoirs. In this aspect, the BDCP Model simply does not reflect a real future condition. Foreseeable adaptations that the CVP and SWP could make in response to climate change include: (1) updating operational rules regarding water releases from reservoirs for flood protection; (2) during severe droughts, emergency drought declarations could call for mandatory conservation and changes in some regulatory criteria similar to what has been experienced in the current and previous droughts; [footnote 10: See <a href="http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp.shtml">www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp.shtml</a> for information concerning the SWRCB's urgency drought orders for CVP/SWP operations this year.] and (3) if droughts become more frequent, the CVP and SWP would likely revisit the rules by which they allocate water during shortages and operate more conservatively in wetter years. The modifications to CVP and SWP operations made during the winter and spring of 2014 in response to the drought supports the likelihood of future adaptations. The BDCP Model is, however, useful in that it reveals that difficult decisions must be made in response to climate change. But, in the absence of making those decisions, the BDCP Model results themselves are not informative, particularly during drought conditions. With future conditions projected to be so dire without the BDCP, the effects of the BDCP appear positive simply because it appears that conditions cannot get any worse (i.e., storage cannot be reduced below its minimum level). However, in reality, the future condition will not be as depicted in the BDCP Model. The Reviewers recommend that Reclamation and DWR develop more realistic operating rules for the hydrologic conditions expected over the next half-century and incorporate those operating rules into any CalSim II Model that includes climate change.</p>	<p>Please see response to comment 1613-37. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p> <p>In addition, it is worth noting that models are simplified representations of complex real world systems. The hydrologic and hydraulic models used to evaluate historic and future conditions with and without the action alternatives should be understood in this context. These models are not able to capture all of the actions or operational changes that would and do occur in extraordinary years (such as the drought conditions of 2013-14). The results of these models are most useful when comparing the differences between different runs of the model- i.e., how do water supplies or reservoir conditions change between the with- and without project conditions.</p>
1613	44	<p>[ATT1:] Description of the BDCP Project</p> <p>The BDCP contemplates a dual conveyance system that would move water through the Delta's interior or around the Delta through an isolated conveyance facility. The BDCP</p>	<p>The first two paragraphs of this comment are generally consistent with information contained in Appendix 5A, Modeling Technical Appendix, of the Final EIR/EIS. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>CalSim II files contain a set of studies evaluating the projected operation of a specific version of such a facility. Each Alternative was imposed on two baselines: the NAA-ELT [No Action Alternative-early long term] scenario and the NAA-LLT [NAA-late long term] scenario. The BDCP Preferred Alternative, Alternative 4, has four possible sets of operational criteria, termed the Decision Tree. Key components of Alternative 4 ELT and Alternative 4 LLT are as follows:</p> <p>The same system demands and facilities as described in the NAA with the following primary changes: three proposed North Delta Diversion (NDD) intakes of 3,000 cfs each; NDD bypass flow requirements; additional positive OMR flow requirements and elimination of the San Joaquin River I/E ratio and the export restrictions during Vernalis Adaptive Management Program; modification to the Fremont Weir to allow additional seasonal inundation and fish passage; modified Delta outflow requirements in the spring and/or fall (defined in the Decision Tree discussed below); relocation of the Emmaton salinity standard; redefinition of the E/I ratio; and removal of current permit limitations for the south Delta export facilities. Set within the ELT environment.</p> <p>The changes (benefits or impacts) of the operation due to Alternative 4 are highly dependent upon the assumed operation of not only the NDD and the changed regulatory requirements associated with those facilities, but also by the assumed integrated operation of existing CVP and SWP facilities. The modeling of the NAA Scenarios introduces significant changes in operating protocols suggested primarily to react to climate change. The extent of the reaction does not necessarily represent a likely outcome, and thus the Reviewers have little confidence that the NAA baselines are a valid representation of a baseline from which to compare an action Alternative. However, a comparison review of the Alt 4 to the NAA illuminates operational issues in the BDCP modeling and provides insight as to where benefits or impacts may occur.</p>	<p>results.</p> <p>It should be noted that the use of the climate change and sea level rise assumptions in the No Action Alternative and the action alternatives are provided for two purposes. First, as an indication of future trends. Second, the model results can only be used in a comparative manner, not for absolute values. Therefore, the comparison of conditions under the action alternatives as compared to the No Action Alternative provides an indication of environmental changes due to implementation of the action alternatives without the effects of climate change, sea level rise, and population growth that would occur with or without the project and are not caused by the action alternatives/Project and are not mitigated under the Project.</p> <p>Alternative 4A, the Proposed Project, no longer includes a decision tree, but does include a robust collaborative science and adaptive management plan designed to better understand key scientific uncertainties pertaining to Delta fish and operations, and provides a mechanism for adjustments to operations to ensure that the effects of the CVP and SWP are minimized with the new point of diversion. Please see Master Response 44 for additional information regarding the decision tree.</p>
1613	45	<p>[ATT1:] BDCP Alternative 4 has four possible sets of operational criteria, termed the Decision Tree, that differ based on the "X2" standards that they contemplate:</p> <ul style="list-style-type: none"> <li>• Low Outflow Scenario (LOS), otherwise known as operational scenario H1, assumes existing spring X2 standard and the removal of the existing fall X2 standard;</li> <li>• High Outflow Scenario (HOS), otherwise known as H4, contemplates the existing fall X2 standard and providing additional outflow during the spring;</li> <li>• Evaluated Starting Operations (ESO), otherwise known as H3, assumes continuation of the existing X2 spring and fall standards;</li> <li>• Enhanced spring outflow only (not evaluated in the December 2013 Draft BDCP), scenario H2, assumes additional spring outflow and no fall X2 standards.</li> </ul> <p>While it is not entirely clear how the Decision Tree would work in practice, the general concept is that, prior to operation of the North Delta Diversion, implementing authorities would select the appropriate decision tree scenario (from amongst the four choices) based on their evaluation of targeted research and studies to be conducted during planning and construction of the facility.</p> <p>For this analysis, the Reviewers analyzed the HOS (or H4) scenario because the BDCP [footnote 11: Draft BDCP, Chapter 3, Section 3.4.1.4.4] indicates the initial permit will</p>	<p>As described in response to comment 1613-44, Alternative 4A, the Proposed Project, no longer includes a decision tree, but does include a robust collaborative science and adaptive management plan designed to better understand key scientific uncertainties pertaining to Delta fish and operations, and provides a mechanism for adjustments to operations to ensure that the effects of the CVP and SWP are minimized with the new point of diversion.</p> <p>As described in Appendix 5A, Section B, of the Final EIR/EIS flows to meet the Delta outflow criteria based upon the State Water Resources Control Board Decision 1641 and the 2008 USFWS biological opinion are provided by a combination of SWP and CVP reservoir releases and limitations on Delta exports. Under Alternatives 4 H2 and 4 H4, water to support enhanced spring Delta outflow was provided by additional water releases from reductions in Delta exports and releases from Lake Oroville. The enhanced spring Delta outflow was considered to be met outside of the Coordinated Operations Agreement which defines sharing criteria between the SWP and CVP. This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, Modeling Results. Under Alternative 4A, the enhanced spring Delta outflow was only met by reduction in Delta exports.</p> <p>Please see Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results. Please see Master Response 44 for additional information regarding the decision tree and Master Response 33 that addresses adaptive management and monitoring.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>include HOS operations that may be later modified at the conclusion of the targeted research studies. The HOS includes the existing fall X2 requirements but adds additional outflow requirements in the spring. The model code was reviewed and discussed with DWR and Reclamation, who acknowledged that, although the SWP was bearing the majority of the responsibility for meeting the additional spring outflow in the modeling, the responsibility would need to be shared with the CVP under the CVP/SWP Coordinated Operations Agreement (COA) [footnote 12: August 7, 2013 meeting with DWR, Reclamation, and CH2M HILL]. In subsequent discussions, DWR and Reclamation suggested the additional water for the HOS scenario may be purchased from other water users. However, the actual source of water for the additional outflow has not been defined. The actual source of the water will involve impacts that cannot be reflected in the modeling until the source is identified. While it is agreed that this is not how the projects would actually be operated, since the BDCP Model assumes that the SWP bears the majority of the responsibility for meeting the additional outflow, the Reviewers' analysis of the BDCP modeling results for HOS is limited to the evaluation of how the SWP reservoir releases on the Feather River translate into changes in Delta outflow and exports.</p>	
1613	46	<p>[ATT1:] High Outflow Scenario (HOS or H4) Results</p> <p>According to the Draft EIR/EIS [footnote 13: Draft EIR/EIS, Appendix 5A-C, Table C-13-20-2], the High Outflow Scenario will reduce SWP south of Delta water deliveries for municipal and industrial (M&amp;I) water users 7% below the level that they would receive without the BDCP (on average). During dry and critical years, SWP south of Delta water deliveries for M&amp;I and agricultural water users will drop 17% below the level that they would receive without the BDCP. In other words, according to BDCP modeling, SWP contractors would get less water with BDCP than under the NAA [No Action Alternative].</p> <p>The shared CVP and SWP obligation to provide flow to satisfy Delta outflow requirements is described in the COA [Coordinated Operations Agreement]. Because the CVP and SWP share responsibility for meeting required Delta outflow based on that specific sharing (rules under the COA), it is not reasonable to conclude that CVP water supplies would increase an average of 70 thousand acre feet while SWP water supplies decrease on average of 100 TAF under the HOS. These results, however, are what the BDCP modeling projects for the HOS-LLT scenario. The manner in which this alternative is modeled is inconsistent with existing agreements and operating criteria. If the increases in outflow were met based on COA, there would likely be reductions in Shasta and Folsom storage that would likely cause adverse environmental impacts, which have not been modeled or analyzed in the BDCP EIR/EIS.</p> <p>Furthermore, there is no apparent source of water to satisfy the increased outflow requirements and pay back the COA debt that the CVP would incur if the SWP were used to meet HOS requirements. It appears, through recent public discussions regarding the High Outflow Scenario, that BDCP anticipates additional water to satisfy the increased Delta outflow requirement and to prevent the depletion of cold water pools will be acquired through water transfers from upstream water users. However, this approach is unrealistic. During most of the spring months, when BDCP proposes that Delta outflow be increased, agricultural water users are not irrigating. This means that there is not sufficient transfer water available to meet the increased Delta outflow requirements without releasing stored water from the reservoirs.</p> <p>The overall effect of the HOS appears to be increases in Oroville releases to support both</p>	<p>Water deliveries under Alternative 4A are different than the values presented in this comment for the Alternative 4. Alternative 4A, the propose project, will maintain compliance with Delta outflow regulatory requirements for all water years with the use of the North Delta intakes, as described in Chapter 5 Water Supplies, and Chapter 6 Surface Water of the final EIR/EIS. A detailed discussion of the specific Delta outflows under a range of seasons and water year types is contained in Appendix 5A of the Final EIR/EIS.</p> <p>As described in response to comment 1613-45, flows to meet the Delta outflow criteria based upon the State Water Resources Control Board Decision 1641 and the 2008 USFWS biological opinion are provided by a combination of SWP and CVP reservoir releases and limitations on Delta exports.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>CVP and SWP exports in wetter years, with modest increases in Delta outflow. There is also a decrease in SWP reliability through large delivery reductions in drier years accompanied by Oroville storage increases. In addition to increases in dry and critical year storage in Oroville, total CVP dry and critical year carryover increases by 100 TAF and 380 TAF respectively with negligible reductions in wetter years types.</p>	
1613	47	<p>[ATT1:] American River Changes with Proposed Project</p> <p>The following section presents comparisons of model results and describes changes between the NAA- LLT [No Action Alternative-late long term] and Alternative 4 H3 evaluated at LLT (referred to in this discussion as Alt 4-LLT) for key American River operations. These results focus on changes that directly impact American River water purveyors, flows, and temperatures in the American River downstream of Folsom Dam.</p> <p>Based on a comparison of BDCP modeling of Alt4-LLT to NAA-LLT, there is a general trend for Folsom Reservoir to be drawn down more in Alt4-LLT during May and June and then remain lower until September. This change in storage is accompanied by increases in Lower American River flow in May and June and decreases from July through September. This shift in timing forms the basis of many concerns regarding impacts of BDCP on American River operations and environmental conditions.</p> <p>BDCP modeling did not include a with-Project scenario without climate change. As a result of this omission it is impossible to clearly identify the effects of the Project separate from the effects of climate change.</p> <p>Figure 5 [ATT1:ATT7] is a comparison of simulated monthly Folsom Reservoir water surface elevations for the baseline and with-Project scenarios. A probability of exceedance chart for each month illustrates differences between the two model simulations and potential Project effects. Dashed horizontal lines indicate water surface elevations when groups of shutters on the intake device must be removed. For example, when the water surface elevation goes below approximately 430 feet, the first group of shutters must be removed. These lines are 30 feet above the top of shutter elevations for the three groups of shutters to account for water depth to prevent the formation of a vortex and cavitation at the intake which would prevent diversion.</p> <p>Results presented in Figure 5 illustrate that Folsom Reservoir water surface elevation is lower under the with-Project scenario. The largest difference in Folsom elevation occurs from June through August and can affect temperature management by changing when shutters are removed. Shutters are removed from Folsom Dam's intakes in order to access colder water located lower in the reservoir. While removing shutters causes the temperature of water diverted and released from the reservoir to drop almost immediately, that effect does not cause release temperatures to remain cooler indefinitely.</p> <p>Accordingly shutters must be removed strategically.</p> <p>The timing of shutter removal at Folsom Reservoir would change in the with-project condition. For example, in August the probability of all three shutters being in use is reduced from approximately 25 percent to 15 percent, and the probability of at least one shutter still in used is reduced from approximately 90 percent to 85 percent. Figure 6 [ATT1:ATT8] is a comparison of simulated monthly Folsom Reservoir storage for the baseline and with-Project scenarios. A probability of exceedance chart for each month illustrates</p>	<p>The first two paragraphs of this comment are generally consistent with information contained in Appendix 5A of the Final EIR/EIS.</p> <p>See response to comment 1613-44 for discussion of the use of the climate change, sea level rise, and population growth assumptions in the No Action Alternative and action.</p> <p>The shutter operational assumptions were analyzed by the Reclamation monthly temperature model, as described in Chapter 11, Fish and Aquatic Resources, of the Draft EIR/EIS. Reservoir releases from SWP and CVP models were not changed in alternatives that did not fully comply with downstream temperature criteria; however, the effects to the fisheries were described in Section 11.3 of Chapter 11.</p> <p>See response to comment 1613-2 and 1613-4 for discussion of how the conditions under the No Action Alternative and the action alternatives include climate change and sea level rises which would result in low water elevations in drier years in the SWP and CVP reservoirs upstream of the Delta even without project alternatives. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>differences between the two model simulations and potential Project effects. Dashed horizontal lines in Figure 6 represent storage levels below which M&amp;I water purveyors cannot meet peak demands (322 TAF) with diversions from Folsom (illustrated for peak demand months only) or when M&amp;I diversions are interrupted because water levels in Folsom are below the M&amp;I intake (90 TAF). Results summarized in Figure 6 show that Folsom Reservoir storage is more likely to be lower under the BDCP Alt4-LLT than the NAA-LLT particularly in peak summer months. Lower storage impacts the ability of the water purveyors that divert directly from Folsom Reservoir, as well as downstream purveyors on the American River, to meet peak demands in the summer and increases the probability of M&amp;I delivery interruptions.</p>	
1613	48	[ATT1:ATT7:] Figure 5. NAA-LLT and Alt 4-LLT Simulated Folsom Reservoir Elevation	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-47 regarding comment referencing this figure.
1613	49	[ATT1:ATT8:] Figure 6. NAA-LLT and Alt 4-LLT Simulated Folsom Reservoir Storage	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-47 regarding comment referencing this figure.
1613	50	<p>[ATT1:] Figure 7 [ATT1:ATT9] and Figure 8 [ATT1:ATT10] contain comparisons of simulated monthly flow at Nimbus and H Street for the NAA-LLT and Alt4-LLT scenarios. Results show that under the Alt4-LLT American River flow is higher in the months of May and June, and lower in July, August, and September. Higher releases in May and June drive changes in Folsom storage and water surface elevation seen in previous figures. Likewise, lower releases from July through September bring simulated end-of-September storage between the baseline and with-Project scenarios closer. BDCP modeling shows a higher probability of Lower American River flows being above Hodge Flows in May and June and a higher probability of flows being below Hodge Flows in July, August, and September. When Nimbus releases are below Hodge Flows, diversion limitations under the City of Sacramento's American River water right permits for the Fairbairn Water Treatment Plant on the American River constrain the amount of water available to divert. The changes in American River flows will affect the location of the City of Sacramento's diversion, but this is not reflected in the BDCP modeling. There are also limitations on the City's Sacramento River diversion capability, which could interfere with any such shift in the location of diversions, and hence reduce the supply available to the City. This is not reflected in the BDCP modeling. In the Alt 4-LLT the City of Sacramento will be able to divert more water from the American River at Fairbairn during May and June and less during August and September.</p> <p>Flow in the lower American River at H Street drops below 500 cfs in both the NAA-LLT and Alt4-LLT. This is critical for the City of Sacramento because their ability to divert water from the American River is affected when flow at H Street falls below 500 cfs due to the potential for pump cavitation. There are times when American River at H Street falls below 500 cfs more often in Alt 4-LLT than in the NAA-LLT. Water availability to the City of Sacramento, including under its settlement contract with Reclamation [footnote 14: Operating Contract No.14-06-200-6497.], would be curtailed or eliminated on the American River when water levels in Folsom Reservoir drop below to dead pool level of 90,000 AF.</p> <p>Changes in Nimbus release under the Alt4-LLT would likely affect cold-water pool management and water temperatures downstream of Folsom Dam. Increased releases in May and June would reduce cold-water pool, lower reservoir water surface elevation, and require shutters to be removed earlier. Removing shutters earlier would drain Folsom Reservoir's limited cold-water pool more rapidly and potentially impact salmon and</p>	<p>The Final EIR/EIS includes model results specifically for the Proposed Project, Alternative 4A, and Alternatives 2D and 5A as compared to Existing Conditions and No Action Alternative. These results indicate that the American River flows below Nimbus Dam under the Alternative 4A are below the Hodge criteria at similar or lower probability than the No Action Alternative under all months except August and September. Even though the flows are below the Hodge criteria for a few additional years under Alternative 4A compared to the No Action Alternative, City of Sacramento deliveries were found to be similar under both scenarios. The frequency at which the American River flows at H street under Alternative 4A are less than 500 cfs is similar in frequency to the conditions under the No Action Alternative. The changes in the Folsom Lake cold water pool and releases under Alternative 4A compared to the No Action Alternative and its fishery effects were analyzed in Chapter 11 of the Final EIR/EIS. Please see also response to comment 1613-30 for additional discussion of Hodge Flow requirements.</p> <p>It should be noted that 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 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.</p> <p>The San Luis Reservoir rule curve is an input to CALSIM II which provides a target storage each month that is dependent on the South-of-Delta allocation and upstream reservoir storage. The rule curve allows CALSIM II to emulate judgement of the operators in balancing the north-of-Delta and south-of-Delta storage conditions. In the absence of any other operating criteria controlling the upstream reservoir releases or the</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>steelhead in the lower American River by resulting in warmer river temperatures. From July through September temperature management would be affected by the combination of a reduced cold-water pool and lower releases from Nimbus, i.e. lesser amounts of warmer water would be released and warm up quicker as it flows downstream.</p> <p>The change in timing of release from Folsom Reservoir is caused in the Alt 4-LLT by BDCP using of different assumptions for balancing reservoirs upstream of the Delta with San Luis Reservoir in Alt 4-LLT relative to assumptions in the NAA. In other words, the BDCP operations triggered changes in the timing of Folsom Reservoir releases. These balancing rules attempt to move more water into San Luis Reservoir earlier in the year in the with-Project scenario. It is unclear why BDCP modeling changed these assumptions to simulate Project alternatives.</p>	<p>Delta exports, different San Luis Reservoir rule curves can result in differences in upstream reservoir release patterns, and Delta exports. Assumed San Luis Reservoir rule curve could differ depending on the available export capacity during winter and spring months, and the need to protect upstream carryover storage in the fall months. For the No Action Alternative simulation, the San Luis Reservoir rule curve is managed to maximize filling during summer and fall months when the Delta export pumping is less constrained to minimize situations in which south-of-Delta shortages may occur due to lack of storage or exports. Under the EIR/EIS proposed project and other action alternatives with the north Delta diversion, the CALSIM II San Luis Reservoir rule curve was modified in expectation that the new north Delta diversion facility would allow capturing winter and spring excess flows and filling of the San Luis Reservoir to a greater extent than the No Action Alternative. Additional modifications to the rule curve were included to preserve upstream carryover storage conditions while minimizing south-of-Delta shortages in the fall months. Under Alternative 4A, the San Luis Reservoir storage conditions are also affected by the restrictive south Delta export operations in October.</p> <p>It is recognized that future projects could change the San Luis Reservoir rule curve. However, these future actions would require engineering and environmental analyses that would consider the potential changes to the existing and planned infrastructure at the time of those studies. Changes in these assumptions would be speculative and are not included in the No Action Alternative in this EIR/EIS. Changes in these assumptions also are not necessarily consistent with the project objectives or purpose and need for the project proponents, and are not included in the action alternatives.</p> <p>Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p>
1613	51	<p>[ATT1:] Figure 9 [ATT1:ATT11] contains comparisons of simulated monthly flow in the Sacramento River at the confluence of the American River for the NAA-LLT and Alt4-LLT scenarios. When Sacramento River elevation falls below two feet above sea level (NGVD 1929) the City of Sacramento’s intake structure capacity is reduced. Elevation 2.0 occurs when the flow rate is between approximately 5,000 cfs and 9,000 cfs and depends on tidal variation. Moreover, flow rates below 5,000 cfs may result in cavitation or vortexing, causing significant pump damage. Based on CalSim II modeling results, the frequency of the Sacramento River falling below 6,000 cfs is similar in the NAA-LLT and Alt4-LLT.</p> <p>[ATT1:] Figure 10 [ATT1:ATT12] is an exceedance probability plot of CVP North of Delta Municipal and Industrial Water Service Contract Allocation for the NAA-LLT and Alt4-LLT. Changes in these allocations would affect the numerous CVP water- service contractors in the American River Basin, including the cities of Folsom and Roseville, Placer County Water Agency, SMUD and Sacramento County Water Agency. Average annual allocation to CVP M&amp;I water service contractors is about 78% and increases by about one half of one percent in Alt 4-LLT compared to NAA-LLT. Although allocation never falls below 50%, deliveries are not always met due to low reservoir and river flows</p>	<p>The comment suggests that the Draft EIR/EIS Alternative 4 scenario does not increase the frequency at which Sacramento River at the confluence of the American River falls below 6000 cfs as compared to the No Action Alternative. The Final EIR/EIS includes model results specifically for Alternative 4A as compared to Existing Conditions and No Action Alternative. These results confirm the conclusion in this comment regarding flows below 6000 cfs. The comment also describes that the CVP north-of-Delta M&amp;I water service contractors allocation is slightly higher under Alternative 4 as compared to the No Action Alternative. The modeling of the Alternative 4A in the Final EIR/EIS confirms CVP north-of-Delta M&amp;I service contractor deliveries are similar or slightly higher than the No Action Alternative.</p> <p>The low Folsom Lake storage values are associated with climate change effects on reservoir operations were included in the No Action Alternative (ELT at 2025 and LLT at 2060) and were used to compare the EIR/EIS alternatives under future conditions. Folsom Lake minimum storage was assumed to be 90 taf, corresponding to an elevation of 320 feet (to allow water supply releases). This condition was simulated to occur in 3 years for the Existing Conditions (CEQA baseline) and was simulated in 6 years for the No Action Alternative (ELT) and in 9 years for the No Action Alternative (LLT). Because the CALSIM model used the same assumed reservoir operations rules for each alternative, the comparison between alternatives and the No Action Alternative result in changes related to the alternative implementation only.</p> <p>As described in response to comment 1613-5, reservoir levels would be similar to the No Action Alternative. Increased water demand that occurs under the No Action Alternative and all action alternatives also effect operations of Folsom Lake with or without the Project. See response to comment 1613-10 for discussion of how additional population growth and increased water demand. Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices for additional information on modeling and modeling results.</p> <p>Please see also Master Response 30 and Final EIR/EIS Chapter 5, Water Supply, and associated appendices</p>

DEIRS Ltr#	Cmt#	Comment	Response
			for additional information on modeling and modeling results.
1613	52	[ATT1:ATT9:] Figure 7. NAA-LLT and Alt 4-LLT Simulated Nimbus Release	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-50 regarding comment referencing this figure.
1613	53	[ATT1:ATT10:] Figure 8. NAA-LLT and Alt 4-LLT Simulated H Street Flow	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-50 regarding comment referencing this figure.
1613	54	[ATT1:ATT11:] Figure 9. NAA-LLT and Alt 4-LLT Simulated Sacramento River Flow at the American River	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-51 regarding comment referencing this figure.
1613	55	[ATT1:ATT12:] Figure 10. CVP North of Delta M&I Water Service Contract Allocation	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-51 regarding comment referencing this figure.
1613	56	<p>[ATT1:] BDCP's "High Outflow Scenario" is not sufficiently defined for analysis.</p> <p>The High Outflow Scenario (HOS) requires additional water (Delta outflow) during certain periods in the spring. The BDCP modeling places most of the responsibility for meeting this new additional outflow requirement on the SWP. However, the SWP may not actually be responsible for meeting this new additional outflow requirement. This is because COA [Coordinated Operations Agreement] would require a water allocation adjustment that would keep the SWP whole. Where one project (CVP or SWP) releases water to meet a regulatory requirement, the COA requires balancing to ensure the burden does not fall on only one of the projects. The BDCP modeling is misleading because it fails to adjust project operations, as required by the COA, to "pay back" the water "debt" to the SWP due to these additional Delta outflow requirements. Unless there is a significant revision to COA, the BDCP modeling overstates the impacts of increased Delta outflow on the SWP and understates the effects on the CVP, including Folsom Reservoir and the Lower American River.</p> <p>Furthermore, based on the information made available from the BDCP environmental review process and after consulting with DWR and Reclamation project operators and managers, the Reviewers conclude that there is no apparent source of CVP or SWP water to satisfy both the increased Delta outflow requirements and pay back the COA "debt" to the SWP without substantially depleting upstream water storage. It appears, through recent public discussions regarding the High Outflow Scenario, that BDCP anticipates additional water to satisfy the increased Delta outflow requirement and to prevent the depletion of cold water pools will be acquired through water transfers from upstream water users. However, this approach may be unrealistic. During most of the spring, when BDCP proposes that Delta outflow be increased, agricultural water users, who are the only source of water in adequate volumes, are not irrigating. This means that they cannot transfer water during that time frame, and hence there is not sufficient transfer water available to meet the increased Delta outflow requirements without releasing stored water from the reservoirs. Releasing stored water to meet the increased Delta outflow requirements would deplete cold water pools and could potentially impact salmonids on the Sacramento and American River systems.</p>	As described in response to comment 1613-45, flows to meet the Delta outflow criteria based upon the State Water Resources Control Board Decision 1641 and the 2008 USFWS biological opinion are provided by a combination of SWP and CVP reservoir releases and limitations on Delta exports
1613	57	<p>[ATT2: Technical Memo</p> <p>Effects of Implementation of the Bay Delta Conservation Plan</p>	This comment describes an attachment to the comment letter. See responses to comments 1613-58 through 1613-71 regarding comments contained in this attachment.

DEIRS Ltr#	Cmt#	Comment	Response
		As Evaluated in the Draft Environmental Impact Report/Environmental Impact Statement on Central Valley Steelhead and Fall-run Chinook Salmon in the Lower American River Prepared for Placer County Water Agency Prepared by Cardno ENTRIX July 2014]	
1613	58	<p>[ATT2:] This technical memo provides an evaluation of the effects of implementation of the Bay Delta Conservation Plan (BDCP), as evaluated in the December 2013 Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS), on Central Valley (CV) steelhead (<i>Onchorhynchus mykiss</i>) (Federally Threatened, 71 Federal Register [FR] 834) and fall-run Chinook salmon (<i>O. tshawytscha</i>) (Federal Species of Concern, 69 FR 19975) in the Lower American River (LAR). The evaluation focuses on Folsom Reservoir operations and resulting physical habitat/temperature conditions for CV steelhead and Chinook salmon in the LAR.</p> <p>The effects analysis in the Draft EIR/EIS is fundamentally flawed and fails to disclose significant adverse impacts on CV steelhead and fall-run Chinook salmon and their habitat in the LAR (critical CV steelhead and non-natal spring-run Chinook salmon critical habitat, 70 FR 52488, Sept. 2, 2005, and Essential Fish Habitat for Chinook salmon, 73 FR 60987, Oct. 15, 2008). If properly evaluated, the information provided in the Draft EIR/EIS would result in National Marine Fisheries Service (NMFS) issuing a jeopardy opinion under the Federal Endangered Species Act (ESA) for the BDCP effects on CV steelhead in the LAR based on the modeled Folsom Reservoir and LAR operations. Similarly, significant unmitigated impacts under California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) would exist for both CV steelhead and fall-run Chinook salmon in the LAR.</p> <p>By failing to disclose impacts from implementation of the BDCP on anadromous fish in the LAR, the Draft EIR/EIS does not comply with CEQA (California Public Resources Code [Section] 21000 et seq.), or NEPA (42 U.S.C. 4321 et seq.). To comply with CEQA and NEPA, the underlying modeling assumptions, alternatives analysis, and impact analysis in the Draft EIR/EIS requires substantial modification such that re-circulation of the document is necessary.</p>	<p>Please see Chapter 11 in the Final EIR/EIS, for a discussion on the methodology used for reaching a conclusion for fish Impacts related to water operations, which includes impacts on the American River. Impact determinations were based on a combination of biological models, numerical thresholds (based on existing literature, consultation with state and federal fish agencies, and existing regulatory requirements), and subject matter expert opinion.</p> <p>The Final EIR/EIS evaluates impacts to fall-run Chinook and Central Valley Steelhead on the American River for the new preferred alternative, Alternative 4A. When comparing American River impacts in Alternative 4A against impacts in the No Action Alternative (NAA; both alternatives include future conditions in the early long-term (2025), thus making it an apples-to-apple comparison, in contrast to the existing conditions baseline, which does not include assumptions in the future), it was determined there would no adverse impacts to aquatic resources in the American River. While some modeling outputs indicated differences between the NAA and the preferred alternative, these differences either did not occur frequent enough or in the months that are most important for certain life stages, the magnitude of change did not warrant an adverse determination, and/or the differences between alternatives were small enough that they were within the margin of error of the models (usually &lt;5%). In addition, Mitigation Measure AQUA-78d commits to using real-time operational adjustments at Folsom, Shasta, and Oroville Reservoirs, whenever possible, to slightly adjust operations, within all existing regulations and requirements, to reduce migration-related effects to Fall-run Chinook salmon. While the modeling used in this analysis represents the best available science, it should also be noted that due to inherent modeling uncertainties and the inability to predict actual future conditions ( including real-time operational adjustments), modeling outputs should be used on a comparative basis only and are not intended to be used as predictive tools.</p> <p>In addition, Folsom Reservoir operational criteria are consistent under the Existing Conditions, No Action Alternative, Proposed Project, and all other action alternatives for continued compliance with existing fish and wildlife regulatory requirements in the American River. Adaptive management under the preferred alternative would also have the ability to inform and improve operations of SWP/CVP facilities to minimize and avoid impacts to fish species similar to Mitigation Measure AQUA-78d. See Master Response 33 for additional information on adaptive management and monitoring.</p>
1613	59	[ATT2:] 2.0 ADVERSE IMPACTS TO CENTRAL VALLEY STEELHEAD AND FALL-RUN CHINOOK SALMON IN THE LOWER AMERICAN RIVER, 2.1 Lower American River Setting, 2.2 Status of Central Valley Steelhead, 2.3 Status of Fall-Run Chinook Salmon, 2.4 Key Life History Information and Temperature Requirements, and 2.5 Existing Habitat Conditions.	
1613	60	<p>[ATT2:] HABITAT CONDITIONS UNDER BDCP FUTURE CONDITIONS</p> <p>The Draft EIR/EIS attempts to use the NAA [No Action Alternative] as the baseline for the analysis. Below we show that the NAA is a radical departure from existing habitat conditions and has large, significant, unmitigated impacts on anadromous fish in the Lower American River compared to existing conditions. The NAA would likely cause age class failures in drier</p>	<p>These sections describe the commenters professional assessment of existing conditions, environmental setting and the modeling methodology used in their description of impacts that are in the comments that follow (60-72). Responses to the substantive comments pertaining to the environmental analysis in the 2013 Draft EIR/EIS are provided in the responses to comments for comments 60-71.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>years and eventual local extinction of the small natural rearing Central Valley steelhead population in the LAR. The NAA would result in large scale fall-run Chinook salmon fish kills in the fall of the drier years.</p> <p>The operation of the CVP/SWP as modeled in the NAA with the sea level rise, climate change, and future demand assumptions results in much lower Folsom Reservoir storage elevations compared to existing conditions (Figures 5a [ATT2:ATT6] and b [ATT2:ATT7]) and greatly increased LAR water temperature. The frequency of Folsom Reservoir being at low storage levels (e.g., &lt;350 thousand acre-feet [TAF]) would increase substantially in July and August under the NAA compared to existing conditions (increases from about 10% of the time under existing conditions to about 30% of the time under the NAA) (Figure 5a). In critical years, mean monthly Folsom Reservoir storage would be 119 TAF, 105 TAF, and 81 TAF lower in July, August, and September, respectively, than under existing conditions (down to 210 TAF, 165 TAF, and 159 TAF, respectively, under the NAA). Mean monthly storage in drier years would drop to less than 350 TAF in August and September under the NAA (&gt;440 TAF under existing conditions) (Figure 5b). Further, the frequency of which Folsom Reservoir would be drained to dead pool storage would increase by about 10% (DWR et al. 2013; p. 5-61). This would result in greatly increased water temperatures in the LAR.</p> <p>Higher American River summer temperature schedules occur when Folsom Reservoir storage drops, particularly as storage falls below 350 TAF in July. Figure 6 [ATT2:ATT8] shows a relationship between the Folsom Reservoir storage in July and LAR water temperature schedules [footnote 2: Automated temperature selection procedure schedules are identified in the LAR Flow Management Standard.]. Figure 7 [ATT1:ATT9] shows relatively large increases in fall water temperature below Nimbus Dam at low Folsom Reservoir water levels as reported in the BDCP EIR/EIS (and the associated Folsom Reservoir storage) under the NAA operations. These changes are most pronounced in drier years.</p> <p>The marginally acceptable CV steelhead rearing water temperature is &lt;70 degrees F, with an upper long-term tolerance temperature of approximately 68 degrees F (see above). Under the NAA, LAR water temperature increases during summer rearing would have a significant adverse impact on CV steelhead (Figures 4a and b). Mean monthly summer (August) water temperatures increase from the modeled existing condition of 69-71 degrees F to 73-77 degrees F (average and critical water years) under the NAA (Figures 4a and b). Over the 1922-2003 period of record, mean monthly water temperatures at Watt Avenue reach 70 degrees F in 9% more of the July months, 13% more of the August months (90% of all August months), and 34% more of the September months (60% of all September months) under the NAA compared to existing conditions. The assumed CVP/SWP operations in the NAA would significantly impact CV steelhead and would result in take of CV steelhead in the LAR. More significantly, entire year classes of CV steelhead juveniles would be lost and, most likely, a complete loss of the LAR naturally spawning CV steelhead population would occur.</p> <p>In the critically dry years, for example, average monthly August water temperatures under NAA (and the Proposed Action Alternative) for the entire LAR are ≥76 degrees F (DWR et al. 2013; Appendix 11C). This would kill all over-summering juvenile CV steelhead. Critically dry years occur 15% of the time. Often critically dry years are sequenced back-to-back (e.g., 1976-1977) and sequenced with multiple dry years. Dry years (22% of the years) have entire LAR August water temperatures ≥72 degrees F. Large scale mortality would occur in these</p>	

DEIRS Ltr#	Cmt#	Comment	Response
		<p>years. It is easy to conceive of a sequence of years under NAA (and the Proposed Project) where the naturally occurring CV steelhead population sequential year mortality coupled with the current low abundance would result in the loss of the natural population. The historic sequence of years from 1987 to 1991 (dry, critically dry, dry, critically dry, critically dry, respectively) (DWR et al 2013; Section 5.5) would result in the loss of the LAR CV steelhead population.</p> <p>Similarly, projected changes in water temperature under the NAA would have large adverse impacts on Chinook salmon spawning in the LAR. Mean monthly fall water temperature (November) in the LAR would increase from existing conditions (modeling) of 56-57 degrees F to 60 degrees F under the NAA. Acceptable Chinook salmon spawning/incubation water temperature is &lt;58 degrees F (see above). These assumed operations in the NAA would result in significant adverse impacts to Chinook salmon in the LAR (Figures 4a and b). Likely large fish kills of pre-spawning fall-run Chinook salmon would occur due to the extreme delays in spawning similar to pre-spawn mortality that happened in 2001 (Water Forum 2005). Monthly average November water temperatures in the NAA (and Proposed Action Alternative) are 3-4 degrees F higher than the existing conditions that have caused mortality.</p>	
1613	61	<p>[ATT2:] BDCP TEMPERATURE SIGNIFICANCE CRITERIA</p> <p>Under current CVP/SWP operations, LAR water temperatures exceed threshold tolerances for anadromous fish during critical life stages (as discussed in the preceding sections). Because the populations are already in stressful temperature conditions, even small increases in water temperature above the current CVP/SWP operations would result in adverse impacts to these species. The BDCP significance criterion do not consider the current condition of the sensitive species and habitat with respect to water temperature in the LAR. For example, significant impacts in the BDCP EIR/EIS were determined as follows:</p> <p>"Physical modeling outputs each month and water year type were compared for between model scenarios at multiple locations to determine whether there were differences between scenarios at each location. A "difference" was defined as a &gt;5% difference between the pair of model scenarios in at least one water year type in at least 1 month." (DWR et al. 2013, p. 11-102).</p> <p>The significance criteria in the Draft EIR/EIS are inadequate and incapable of identifying significant impacts. A &lt;5% increase in mean monthly water temperature in the summer months (July-September) during Central Valley steelhead rearing and/or in the fall during fall-run Chinook salmon spawning (primarily in November) would result in significant adverse impacts to these species. For example, a &lt;5% water temperature change with existing summer temperatures at 68 degrees F results in an increase of approximately 3.4 degrees F, which would result in temperatures of approximately 71.4 degrees F, well above the long-term upper tolerance limit for steelhead juvenile rearing (e.g., Cech and Myrick 1999; Bratovich et al. 2011). Similarly, a &lt;5% temperature change in the existing fall-run Chinook salmon spawning temperature at 60 degrees F results in an increase of approximately 3.0 degrees F, which would result in temperatures of approximately 63.0 degrees F, well above the spawning threshold and mortality water temperature threshold for incubating eggs (e.g., USFWS 1999; NMFS 2002; Reclamation 2008; Bratovich et al. 2011). Figures 4a and b [ATT2:ATT4 and 5] shows the modeled 1922-2003 average monthly water temperatures. Under existing conditions, water temperatures are below 68 degrees F in July and September, except in Critical years, and between 60-70 degrees F in August of all</p>	<p>See response to comment 1613-58 for discussion of the Final EIR/EIS analysis of impacts to fall-run Chinook and Central Valley Steelhead on the American River for the new preferred alternative, Alternative 4A.</p> <p>As discussed in response to comment 1613-15, the increase in water temperatures in the American River are due to low storage elevations in Folsom Lake in drier years, including years during which the CALSIM II model results indicate that Folsom Lake would be at "dead pool" conditions with surface water elevations that would affect releases from Folsom Lake to the American River. See also response to comment 1613-58..</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>water year types, except Critical years. Although the temperature significance criteria were not exceeded in the BDCP EIS/EIR analysis, water temperatures under the No Action Alternative (NAA) and Proposed Action Alternative are above the threshold criteria for CV steelhead and Chinook salmon survival, particularly in the drier years (&gt;74 degrees F in late summer months), and greatly exceed existing conditions.</p>	
1613	62	<p>[ATT2:] The fatal flaw in the Draft EIR/EIS impact analysis is that under the NAA [No Action Alternative] (which includes sea level rise, climate change, and future demand), the modeled CVP/SWP operations resulted in significant adverse effects to upstream resources, including Central Valley steelhead and fall-run Chinook salmon in the Lower American River relative to the existing conditions (environment). These modeled operations are not reasonable or a proxy for future operations that would be allowed under the ESA.</p> <p>The Draft EIR/EIS acknowledges that the CVP/SWP operations would need to change from those depicted. For example, on page 5-61 in DWR et al. (2013), the Draft EIR/EIS discusses operational changes that may need to occur to avoid dead pool conditions:</p> <p>"Adaption measures would need to be implemented on upstream operations to manage coldwater pool storage levels under future sea level rise and climate change conditions. As described in the methods section, model results when storages are at or near dead pool may not be representative of actual future conditions because changes in assumed operations may be implemented to avoid these conditions." (DWR et al. 2013; p. 5-61)</p> <p>Further, the Draft EIR/EIS clearly states that future CVP/SWP operations would be different than the operations used for evaluating impacts of the BDCP:</p> <p>"The CALSIM II simulations do not consider future climate change adaptation which may manage the SWP and CVP system in a different manner than today to reduce climate impacts. For example, future changes in reservoir flood control reservation to better accommodate a seasonally changing hydrograph may be considered under future programs, but are not considered under the BDCP. Thus, the CALSIM II BDCP results represent the risks to operations, water users, and the environment in the absence of dynamic adaptation for climate change." (DWR et al. 2013; pg. 5A.A23)</p> <p>The modeling developed for the Draft EIR/EIS, by their own admission, failed to address climate change and sea level rise in a manner that is reasonable, prudent, or representative of future hydrologic conditions in the upstream systems, including Folsom operations and resulting hydrology in the LAR. The Folsom operations in the NAA would jeopardize the continued existence of CV steelhead and fall-run Chinook salmon in the LAR. By comparing the environmental conditions in the Existing Condition and NAA, it is apparent that future CVP/SWP operations under climate change and sea level rise, as modeled, are unrealistic. Therefore, a revised operations model must be developed under the NAA that addresses climate change and sea level in a manner that is protective of upstream resources, including CV steelhead and Chinook salmon in the LAR.</p>	<p>Please see Chapter 11 in the Final EIR/EIS, for a discussion on the methodology used for reaching a conclusion for fish Impacts related to water operations, which includes impacts on the American River. Impact determinations were based on a combination of biological models, numerical thresholds (based on existing literature, consultation with state and federal fish agencies, and existing regulatory requirements), and subject matter expert opinion. In collaboration with NMFS, a suite of temperature thresholds were developed to determine effects on salmonids and sturgeon in multiple upstream waterways, including the lower American River. These analyses are presented in Chapter 11 of the Final EIR/EIS.</p> <p>See response to comment 1613-58 for discussion of the Final EIR/EIS analysis of impacts to fall-run Chinook and Central Valley Steelhead on the American River for the new preferred alternative, Alternative 4A. See also response to comment 1613-58.</p>
1613	63	<p>[ATT2:] The conclusions in the Draft EIR/EIS impact analysis are invalid because they are based on modeling that is not representative of future conditions and do not incorporate climate change adaptations in the CVP/SWP operations. The impact analysis was based on comparison of the NAA [No Action Alternative] to Project alternatives under modeled operations that in all cases result in significant impacts to Central Valley steelhead and Chinook salmon in the Lower American River compared to the existing condition. The</p>	<p>Please see responses to comments 1613-2 through 1613-4.</p> <p>Please see response to comment 1613-58 for a discussion on the methodology used for reaching a conclusion for fish Impacts related to water operations, which includes impacts on the American River and how the Final EIR/EIS evaluates impacts, including changes in temperature and flow, to fall-run Chinook and Central Valley Steelhead on the American River for the new preferred alternative, Alternative 4A (see</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>fundamental error in the impact analysis is that it totally ignores these impacts. The analysis assumes that conditions in the NAA are representative of future conditions and compounds this error by modeling the Project alternatives using the same faulty operations. It is not surprising that the impact analysis concluded that there would be no significant impacts to CV steelhead and fall-run Chinook salmon in the LAR - the environmental conditions under the NAA have already jeopardized the continued existence of the species. The conclusions in the alternatives analysis do not disclose impacts of the Project as required under NEPA and CEQA. It is solely the responsibility of the lead agency to ensure that the basis for comparison in the impact analysis is reasonable and an accurate representation of future conditions. Basing the impact analysis on unrealistic modeling for the CVP/SWP and ignoring the associated adverse effects on CV steelhead and fall-run Chinook salmon in the LAR fails to inform the public of the BDCP's probable environmental impacts.</p> <p>Further, the impact analysis fails to disclose the impacts of the Project because it co-mingles the effects of climate change, sea level rise, future demand, and implementation of the Project. In the analysis, the Draft EIR/EIS concludes:</p> <p>"These results are primarily caused by four factors: differences in sea level rise, differences in climate change, future water demands, and implementation of the alternative. The analysis described above comparing Existing Conditions to Alternative 1A [used for Alternative 4 as well] does not partition the effect of implementation of the alternative from those of sea level rise, climate change and future water demands using the model simulation results presented in this chapter. " (DWR et al. 2013; pp. 11-405; 11- 411; 11-445; 11-455; 11-518).</p> <p>Therefore, the Draft EIR/EIS is inadequate and does not provide sufficient information to evaluate Project effects on CV steelhead and fall-run Chinook salmon in the LAR. To comply with NEPA and CEQA, the impacts analysis must be revised to disclose project impacts.</p>	<p>Chapter 11).</p>
1613	64	<p>[ATT2:ATT1:] Figure 1. American River Water Temperature and Flow at Monitoring Sites on the Lower American River in Dry and Wet Years</p>	<p>The proposed water conveyance facilities would not be operational until 2030, at 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 2030, climate change and sea level rise would have changed surface water and water supply conditions; although, not to the extent that would occur at the end of the Draft EIR/EIS study period in 2060. Comparisons at 2025 conditions are discussed in the RDEIR/SDEIS and the Final EIR/EIS for Alternatives 2D, 4A, and 5A.</p> <p>The No Action Alternative and all of the action alternatives include climate change and sea level rise assumptions. These changes would result in "dead pool" conditions in SWP and CVP reservoirs upstream of the Delta even without BDCP alternatives. See responses to comments 1613-2 through 1613-4.</p> <p>As described in response to comment 1613-4, operation of the new north Delta facilities will be guided by regulations that are set by the SWRCB. Adaptive management and collaborative science will aid operators in managing the pumping schedule in the presence of sensitive species. Appendix B of the RDEIR/SDEIS shows supplemental modeling results for the new alternatives. In particular Section B.2.1 Alternative 4A the modeling demonstrates that under the preferred alternative (4A) reservoir levels (e.g., Trinity Lake, Shasta Lake, Folsom Lake, and Lake Oroville) would be similar to the No Action Alternative (ELT).</p> <p>The EIR/EIS evaluates the effects of climate change, sea level rise, and population under the No Action Alternative and the Existing Conditions to describe the effects that would occur with or without the action alternatives. These effects are not caused by the Project and are not mitigated. The EIR/EIS also evaluates</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>the effects of climate change, sea level rise, and population growth with the action alternatives through a comparison of conditions under the No Action Alternative and all action alternatives with the Existing Conditions. Therefore, the comparison of conditions under the action alternatives as compared to conditions under the No Action Alternative only describe the effects of implementing the action alternatives.</p> <p>Effects on steelhead and Chinook Salmon are analyzed in Chapter 11, Fish and Aquatic Resources, in the Final EIR/EIS. Please see also response to comment 1613-58.</p>
1613	65	[ATT2:ATT2:] Figure 2. Measured Lower American River Daily Average Water Temperatures below Folsom Dam, at Hazel Avenue, William B. Pond Park, and Watt Avenue and Flow at Fair Oaks Avenue (1998-2012).	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-59 regarding comment text referencing this figure.
1613	66	[ATT2:ATT3:] Figure 3. Measured Lower American River Monthly Average Water Temperatures below Folsom Dam, at Hazel Avenue, William B. Park, and Watt Avenue and Flow at Fair Oaks Avenue (1998-2012).	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-59 regarding comment text referencing this figure.
1613	67	[ATT2:ATT4:] Figure 4a. Percent of Months during 1922-2003 Period during which Mean Monthly Water Temperatures under the Existing Condition, No Action Alternative, and Preferred Alternative (Alternative 4, H3) Scenarios (Early and Late Long-term) in the Lower American River at Watt Avenue Exceeded Temperature Thresholds, May through October.	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-59 regarding comment text referencing this figure.
1613	68	[ATT2:ATT5:] Figure 4b. Mean Monthly Water Temperature (°F) in the American River at Watt Avenue under the Existing Condition, No Action Alternative, and Preferred Alternative (Alternative 4, H3) (Early and Late Long-term).	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-59 regarding comment text referencing this figure.
1613	69	[att2:att6:] Figure 5a. Summer (July - October) Monthly Mean End-of-Month of Storage Folsom Reservoir Storage (TAF) under the Existing Condition, No Action Alternative, and Preferred Alternative (Alternative 4).	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-59 regarding comment text referencing this figure.
1613	70	[ATT2:ATT7:] Figure 5b. Summer (July - October) Monthly Mean End-of-Month of Storage Folsom Reservoir Storage (TAF) under the Existing Condition, No Action Alternative, and Preferred Alternative (Alternative 4) by Water Year Type.	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-60 regarding comment referencing this figure.
1613	71	[ATT2:ATT8:] Figure 6. Folsom Reservoir Storage (TAF) in Relation to ATSP Temperature Schedule1. Higher ATSP Schedules Correspond to Warmer Summer Temperatures. All Schedules Larger than 55 Exceed Summer Temperatures of 70°F.	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-60 regarding comment referencing this figure.
1613	72	[ATT2:ATT9:] Figure 7. Folsom Reservoir Storage (TAF) in Relation to Water Temperature (°F) at Nimbus Dam (September and October) under the Existing Condition (EBC1), No Action Alternative (EBC2_LLT), and Preferred Alternative 4, H3 (PP_LLT).	This comment describes a figure in the attachment to the comment letter. Please see response to comment 1613-60 regarding comment referencing this figure.
1614	1	<p>The California Indian Water Commission hereby submits its position in regard to Sacramento-San Joaquin Delta.</p> <p>We support the No Action Alternative.</p>	<p>The commenter does not offer any evidence on how the project would result in significant impacts.</p> <p>The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1615	1	<p>I am a Southern California resident who realizes the importance of a reliable water supply from Northern California. Over the past 40 years, we have invested billions in the State Water Project to capture and deliver this essential supply, which makes up more than 30 percent of Southern California's water resource mix. I understand that conflicts in the Sacramento-San Joaquin Delta have steadily reduced water deliveries and that our supply from Northern California is at risk long-term because of seismic threats and other vulnerabilities. I am supportive of the efforts by state and federal agencies to find a long-term solution in the Delta that works for both California's environment and economy through the process known as the Bay Delta Conservation Plan.</p> <p>I wanted to relay my support for this effort now that a draft solution is on the table and your agency is seeking comments from members of the public. Southern California is faring better than much of the state during this drought because of our investments in regional storage and conveyance that allowed us in the past to capture adequate supplies in wet years and store that supply for dry years. The supply from Northern California is critical for this system to work. Unfortunately, that supply is at risk until we modernize the Delta portion of the statewide water delivery system so that it reduces conflicts with Delta fish species and protects this supply in the event of natural disasters such as earthquakes.</p>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.</p>
1615	2	<p>Water from Northern California is vital to the entire state, supporting our \$2 trillion urban and agricultural economy and sustaining the Delta environment. We need a solution that works for all stakeholders and we need every region of the state doing its part including increasing conservation and expanding local supplies. Please continue your important efforts on the Bay Delta Conservation Plan so that California can modernize this crucial link in our water system, restore the Delta ecosystem and put the state on a path to a more reliable water future.</p>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. In response to comments received during the 2013-2014 public comment period, State and Federal agencies decided to change the approach and are no longer pursuing the BDCP as the proposed project. Instead, a modified proposed project (Alternative 4A/California WaterFix) is being considered. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.</p>
1616	1	<p>As a State Water Project Contractor, we [Tulare Lake Basin Water Storage District (District)] appreciate the opportunity to provide comments. The State Water Project (SWP) is a critical part of our conjunctive use and groundwater management programs. The current trend of reduced and interrupted SWP supplies and increasing costs has had significant impacts on the District and surrounding area. SWP deliveries have been repeatedly interrupted and reduced due to operational conflicts with threatened and endangered species in the Delta. The reduced reliability of the SWP supplies, coupled with the increased costs of these supplies, has resulted in a significant amount of land going out of production. To avoid further lands from being forced out of production and the corresponding local economic losses, restoration of the SWP reliability is critical.</p>	<p>Please note that the BDCP (Alternative 4) is no longer the preferred alternative. The new preferred alternative is Alternative 4A (California WaterFix). Alternative 4 remains a potentially viable alternative and is being carried forward for consideration in the 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.</p> <p>DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. The project would help to address the resilience and adaptability of the Delta to climate change through water delivery facilities combined with a range of operational flexibility. In addition to the added water management flexibility created by new water diversions and operational scenarios, the project would improve habitat, increase food supplies and reduce the effects of other stressors on the Delta ecosystem.</p>
1616	2	<p>The District [Tulare Lake Basin Water Storage District] has been supportive of the proposed BDCP process to address chronic reduced reliability of the SWP in a manner that protects the Delta's environment. We understand that key issues remain relating to assurances and</p>	<p>For information regarding funding, please see Master Response 5.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		specifics on cost allocations, operations, outflow range, financing and other issues. The District remains concerned on costs and the affordability of the BDCP for its agricultural landowners.	
1616	3	The District [Tulare Lake Basin Water Storage District] supports comments provided by the State Water Contractors (SWC), Inc., in their letter [BDCP 1568] dated July 28, 2014.	All comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest.
1617	1	We are concerned that the state is examining a project that will not solve the state's water supply or ecosystem challenges.  As the amount of water diverted from the Delta increases, we are concerned that the state will be looking for additional water supplies from the already over-allocated tributaries and upper watersheds of the San Joaquin and Sacramento Rivers.	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.  The proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).  The action alternatives would only deliver the amount of water diverted under the existing SWP and CVP water rights and the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards.
1617	2	Chapter 5 -- Water Supply:  "The study area for the water supply analysis includes the Delta region, areas upstream of the Delta region that may experience changes in operations as a result of implementation of the BDCP alternatives, and the SWP and CVP Service Areas. The Delta watershed includes the tributary rivers that flow into the Delta from the Sacramento River and the San Joaquin River basins." [footnote 1: Ch: 5, sec. 5.1, pg. 5-1]  What is unknown is where additional sources of water will come from to restore the Delta when enough water to fill the pipes is diverted from the Sacramento River instead of being allowed to flow through the Delta. The DEIR does not fully cover the areas that could be threatened as future water sources for the tunnels.	The action alternatives would only deliver the amount of water diverted under the existing SWP and CVP water rights and the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. The alternatives do not change diversion of senior water rights and continue to meet instream flow requirements.  Under the range of alternatives considered in the Final EIR/EIS full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors. Full contract deliveries occur in extremely wet years. Please refer to Ch. 5 in the Final EIR/EIS for additional information on water supply. For additional information about water demand management, see also Master Response 6. Also see, response to comment 1617-1.
1617	3	The environmental effects that must be considered in an EIR include, direct and indirect effects, short and long term effects, physical changes in an area, potential health and safety problems, changes in ecological systems, changes in population distribution and concentration, changes in land use, effects on public services, and effects on natural resources including water, scenic beauty, etc. (CEQA Guidelines, sec. 15126.2, subd. [a].) As the California Supreme Court has noted, a project description should account for reasonably foreseeable future phases of proposed projects if they may change the scope of the initial project or its environmental impacts. (Laurel Heights Improvement Association	Discussions of the main environmental attributes affecting individual special status species are provided in Appendix 2.A of the 2013 public draft BDCP. Effects of the proposed water conveyance and associated restoration activities on general resource areas are discussed in Ch. 4 of the RDEIR/SDEIS. Resource areas are addressed separately under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, public health, and others. Where impacts are determined to be significant, environmental commitments will be implemented to avoid and/or offset these effects, where

DEIRS Ltr#	Cmt#	Comment	Response
		<p>of San Francisco v. Regents of the University of California [1988] 47 Cal.3d 376, 393 399 [253 Cal.Rptr. 426.]</p> <p>It is particularly true for infrastructure projects, that an EIR must evaluate the impacts of not only the construction of the infrastructure (in this case the tunnels), but also the impacts of their use (in this case, filling them with water). "Construction of the road way and utilities cannot be considered in isolation from the development it presages." (City of Antioch v. City Council of Pittsburgh [1st Dist. 1986] 187 Cal.App.3d 1325 [232 Cal.Rptr. 507].) "It is obvious that constructing a large interchange on a major interstate highway in an agricultural area where no connecting road currently exists will have substantial impact on a number of environmental factors." (City of Davis v. Coleman [9th Cir. 1975] 521 F.2d 661, 674 675.)</p> <p>The EIR must also identify mitigation measures to address these impacts. In this case, the EIR must identify the origin of Delta mitigation flows. CEQA requires agencies to adopt feasible mitigation measures in order to substantially lessen or avoid otherwise significant environmental effects. (Pub. Resources Code, secs. 21002, 21081, subd. [a]; CEQA Guidelines, secs. 15002, subd. [a][3], 15021, subd. [a][2], 15091, subd. [a][1].)</p>	<p>possible. See response to comment 1617-1.</p>
1617	4	<p>The EIR must disclose any secondary impacts resulting from the mitigation. (CEQA Guidelines, sec. 15126.4, subd. (d).) In this case, there will be impacts to the natural and the human environment associated with taking water from existing uses to secure mitigation flows for the Delta. In fact, these impacts are likely to be among the most significant impacts of the project. This is because it is in these river and lake locations where the impact will hit the ground and not be further reduced. It is in these locations where the chain of cause and effect ends. It is in these locations, where the shell game of water transfers tries to hide the impacts. To the people who currently use those waters to live, to work, and to recreate; and to the fish, the wildlife and the ecosystems those waters sustain; these are the project impacts that count. In short, to avoiding impacts to the Delta, harm will be done to other places from which water will be taken.</p> <p>Because these ultimate impacts are so serious, it is highly prejudicial to truncate the impact analysis without a commitment to specific mitigation measures, and a disclosure of the associated secondary impacts to the areas of origin from whence will come the mitigation flows for the Delta. Remember, "A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR process." (Kings County Farm Bureau et al. v. City of Hanford (5th Dist. 1990) 221 Cal.App.3d 692, 712 [270 Cal.Rptr. 650].)</p> <p>In the Final EIR, please identify where additional sources of water will come from to restore the Delta. Please identify the secondary impacts of the mitigation.</p>	<p>The action alternatives would only deliver the amount of water diverted under the existing SWP and CVP water rights, and full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors. Full contract deliveries may occur in extremely wet years. Please refer to Ch. 5 in the Final EIR/EIS for additional information on water supply. See Master Response 9, for discussion of cumulative impacts assessment. For more discussion regarding area of origin issues, see also Master Response 26.</p>
1617	5	<p>"Variability and uncertainty are the dominant characteristics of California's water resources." [footnote 2: Ch: 5, sec. 5.1.1, pg. 5-1]</p> <p>This is a conclusory statement unsupported by citation to substantial evidence in the record. If you retain this statement in the Final EIR, please explain the statement. Please provide examples of the alleged "dominant uncertainty" to support the assertion. Please provide specific references to substantial evidence in the record to support the assertion. "The EIR shall cite all documents used in its preparation including, where possible, the page and</p>	<p>The text in Chapter 5, Water Supply, is the introductory statement to a subsection which refers to a document prepared by DWR and Western Regional Climate Center.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>section number." (CEQA Guidelines, sec. 15148.)</p> <p>A better approach would be to remove this assertion from the Final EIR. Such a loaded statement seems inappropriate for an objective and interdisciplinary impact analysis. EIR's are not supposed to spout hyperbole that advocate for a particular project or alternative.</p>	
1617	6	<p>"Local surface storage and deliveries, together with reuse, account for about 40% of the state's developed water supplies. Groundwater is also a significant resource, supplying about 35% of the state's water needs, and during droughts, 40% or more. Imported water from the Colorado River provides 10% of the state's developed water supply, serving communities in Southern California. A small amount is attributed to recycled water and other local reuse projects (California Department of Water Resources 2009)." [footnote 3: Ch: 5, sec. 5.1.1.2, pg. 5-2-3]</p> <p>Please note that some water supply components are missing from the analysis, since 40% + 35% + 10% ≠ 100%. This statement does not adequately report what is currently being supplied from recycled water and reuse projects.</p> <p>EIRs should "emphasize feasible mitigation measures and alternatives to projects." (Pub. Resources Code, sec. 21003, subd. (c).) An EIR must evaluate a range of reasonable alternatives to the project capable of eliminating any significant adverse environmental effects of the project, or reducing them to a level of insignificance, even though the alternatives may somewhat impede attainment of project objectives, or may be more costly. (Pub. Resources Code, sec. 21002; CEQA Guidelines, sec. 15126, subd. (d); Citizens for Quality Growth v. City of Mount Shasta (3d Dist. 1988) 198 Cal.App.3d 433, 443 445 [243 Cal.Rptr. 727].) "The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making." (CEQA Guidelines, sec. 15126.6 subd. (f).)</p> <p>The Final EIR should cover all viable alternatives and assess conservation/reclamation options for sources of water as in depth as all other alternatives.</p>	<p>As described in DWR's California's Water Plan Update 2009 (referenced in the paragraph addressed in this comment), approximately 15 percent of California's water supply is from the SWP, CVP, and other federal water projects. These values are not addressed in the cited paragraph in Chapter 5, Water Supply, of the Final EIR/EIS.</p> <p>The proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).</p> <p>The action alternatives would only deliver the amount of water diverted under the existing SWP and CVP water rights and the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards.</p>
1617	7	<p>"efficient groundwater basin management will be necessary to avoid additional overdraft and to take advantage of opportunities to store water underground and eliminate existing overdraft." [footnote 4: Ch: 5, sec. 5.1.1.2, pg. 5-4]</p> <p>Yes, fund this type of project. In the Final EIR, please identify which alternatives would include projects that will look at opportunities to store water underground and eliminate existing overdraft. The BDCP does not create any new water. It simply moves it from one location where it is already in short demand to another area where it will be used much less efficiently.</p>	<p>See Response to Comment 1617-6. See also Master Response 6 on the topic of water demand management.</p>
1617	8	<p>"Retrofitting is expensive, can conflict with existing infrastructure and may cause a disruption for the public. For new developments, dual plumbing of homes and facilities makes implementing recycled water use more cost-effective. Another area of emerging water reclamation is agricultural drain water." [footnote 5: Ch: 5, sec. 5.1.1.2, pg. 5-4]</p> <p>This is part of the short and conclusory paragraph dedicated to Water Reuse. This really</p>	<p>This statement in Section 5.1.1.2 of Chapter 5, Water Supply, of the Draft EIR/EIS is a summary of historical developed water supplies, and is not meant to describe the future water management opportunities, including expansion of water recycling programs. The proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in recycling.</p> <p>The California Water Action Plan recognizes that all Californians have a stake in the future of our state's</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>does not give this information in a detailed, documented, and unbiased way.</p> <p>CEQA requires a "quantitative, comparative analysis" of the relative environmental impacts and feasibility of project alternatives. (Kings County Farm Bureau et al. v. City of Hanford (5th Dist. 1990) 221 Cal.App.3d 692, 730 737 [270 Cal.Rptr. 650].) "Without meaningful analysis of alternatives in the EIR, neither the courts nor the public can fulfill their proper roles in the CEQA process." (Laurel Heights Improvement Association of San Francisco v. Regents of the University of California (1988) 47 Cal.3d 376, 404 [253 Cal.Rptr. 426].) "A conclusory statement 'unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind' not only fails to crystallize issues [citation] but 'affords no basis for a comparison of the problems involved with the proposed project and the difficulties involved in the alternatives.'" (People v. County of Kern (5th Dist 1974) 39 Cal.App.3d 830, 841 842 [115 Cal.Rptr. 67], quoting Silva v. Lynn (1st Cir. 1973) 482 F.2d 1282, 1285.)</p> <p>We hope that before spending what could be \$67 billion, options such as reuse and conservation will be evaluated as even-handedly and with as much detail as other alternatives.</p>	<p>water resources, and that a series of actions are needed to comprehensively address the water issues before us. The five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species — all amid the uncertainty of drought and climate change. For more information regarding future developments of the California Action Water Plan, please follow <a href="http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf">http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf</a>. Future committees for the Proposed Project implementation may provide future opportunities for innovative input as well.</p> <p>The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: <a href="http://www.waterplan.water.ca.gov/">http://www.waterplan.water.ca.gov/</a>.</p> <p>Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, Final EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS. Appendix 1B, Water Storage, EIR/EIS, describes the potential for additional water storage and Appendix 1C, Demand Management Measures, Final EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead Agencies recognize that they are important tools in managing California's water resources.</p> <p>Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management and Master Response 37 regarding water storage.</p>
1617	9	<p>"East Side Division" [footnote 6: Ch: 5, sec. 5.1.2, pg. 5-12-14] What does this heading mean? The section goes on to discuss west-slope rivers. This is unclear. On page 5-14 the DEIR states that the "2009 NMFS BiOp Action III.1.3 requires Reclamation to make releases from the East Side Division reservoirs to achieve minimum flows below Goodwin Dam." --</p> <p>Is this referring to the east side of the Central Valley? Please clarify this in the Final EIR. Please provide a map indicating the location of relevant reservoirs and rivers. The description of the local and regional environmental setting must be sufficient to provide an understanding of the significant effects of the proposed project and its alternatives. (CEQA Guidelines, sec. 15125.) In addition, "EIRs shall be written in plain language and may use appropriate graphics so that decision makers and the public can rapidly understand the documents." (CEQA Guidelines, sec. 15140.)</p>	<p>As described in the pages cited in this comment, the "East Side Division" is the name for the CVP New Melones Reservoir and the water users directly served from this reservoir.</p>
1617	10	<p>"CVP operations reflect provisions of the Central Valley Project Improvement Act. CVPIA provisions relate in part to environmental uses of water including dedication of [ ] acre feet of CVP yield annually to fish, wildlife, and habitat restoration under Section 3406(b)(2) of the CVPIA issued by the Department of the Interior." [footnote 7: Ch: 5, sec. 5.2.1.1, pg. 5-32, line 35-36]</p> <p>There is a blank in this section of the DEIR. The Final EIR should report the number. Otherwise the sentence has no meaning. "A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR process." (Kings County Farm Bureau et al. v. City of Hanford (5th Dist. 1990) 221 Cal.App.3d 692, 712 [270 Cal.Rptr. 650].)</p>	<p>The sentence has been corrected in the Final EIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1617	11	<p>"This plan consists of many activities including storage, conveyance, ecosystem restoration, levee integrity, watersheds, water supply reliability, water use efficiency, water quality, water transfers, and science." [footnote 8: Ch: 5, sec. 5.2.1.1, pg. 5-33-34]</p> <p>How are watersheds, water supply reliability, water use efficiency, water quality, and science activities? Listing science or watersheds as an activity is a bit broad and unclear. What activities will be going on in the watersheds? Please provide more specificity regarding these activities in the Final EIR. "The courts have favored specificity and use of detail in EIRs." (Whitman v. Board of Supervisors (2d Dist. 1979) 88 Cal.App.3d 397, 411 [151 Cal.Rptr. 866].)</p>	<p>This referenced text is a summary of the CALFED Bay Delta Implementation Act in a Section on Federal Regulations Related to the SWP and CVP Authorization and Operations. The purpose of this text is to provide a brief overview of the CALFED Act to support the Setting/Affected Environment discussion in Chapter 5, Water Supply. Additional detail about this Act can be obtained by accessing Public Law 108-361 or the CALFED Record of Decision. No changes to the Final EIR/EIS have been made because additional detail about this act is not needed to describe existing conditions as used in the EIR/EIS impact analyses.</p>
1617	12	<p>Chapter 11 -- Fish</p> <p>"Workplan activities include a suite of actions and are divided into nine broad elements that address: ....(4) the BDCP, water rights, and other requirements to protect fish and wildlife beneficial uses;" [footnote 9: Ch: 11, sec. 13.2.3.11, pg 11-175, line 3]</p> <p>What workplan activities are planned for water rights? Will the project be seeking additional sources of water from upstream tributaries of the Sacramento and San Joaquin Rivers? In the Final EIR, please provide more detail regarding this aspect of the project description. "An accurate, stable, and finite project description is the sine qua non of an informative and legally sufficient EIR." (County of Inyo v. City of Los Angeles (3d Dist. 1977) 71 Cal.App.3d 185, 193, [139 Cal.Rptr. 396].) "A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decisionmakers balance the proposal's benefit against its environmental costs, consider mitigation measures, assess the advantage of terminating the proposal (i.e. the 'no project' alternative) and weigh other alternatives in the balance." (Id. at pp. 192 193.)</p>	<p>The State Water Resources Control Board, not DWR, is responsible for decisions relating to water rights. DWR holds water rights approved by the State Water Resources Control Board but does not have the power or authority to issue water rights to others. Additionally, the proposed project does not seek any new water rights nor include any regulatory actions that would affect water rights holders other than DWR, Reclamation, and SWP and CVP contractors.</p> <p>Importantly, all water exported by the SWP and CVP is the subject of the existing water rights of those two agencies. Exports do not come at the expense of other water rights holders. The proposed project and its alternatives analyzed in the EIR/EIS only include the use of water from existing SWP and CVP water rights or voluntary water transfers from other water rights holders. The proposed project and its alternatives do not reduce the protections for other water right holders.</p> <p>The proposed project would not affect upstream water rights. It aims to allow the federal and state water projects to deliver more reliable water supplies, in a way less harmful to fish. The project does not increase the amount of water to which DWR holds water rights or for use as allowed under its contracts. The CALSIM II modeling performed for conveyance facility operations takes into account projected future demand for water supply in areas upstream of the Delta (as part of the future No Action baseline) prior to calculating Proposed Project diversion estimates to ensure that no area-of-origin protections or upstream water rights are affected by project conveyance facilities. Please see Appendix 5A of the FEIR/FEIS for additional modeling details.</p> <p>For more information regarding changes in delta exports please see Master Response 26, Area of Origin.</p> <p>At this time it is anticipated that CVP upstream operations will not change to accommodate construction and operation of new water conveyance facilities as may be proposed by the proposed project. However, if Reclamation determines that changes in upstream operations are warranted to maintain operational efficiencies or for other reasons, Reclamation may undertake additional environmental analysis.</p> <p>Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4.</p>
1617	13	<p>Chapter 13 -- Land Use</p> <p>"Alternative 1A -- Dual Conveyance with pipeline/tunnel and Intakes 1-5 (15,000 cfs; Operational scenario A)" [footnote 10: Ch: 13, sec. 13.3.3.2 pg 13-54, line 26]</p> <p>If this tunnel takes 15,000 cfs from the Delta, where is the water to restore the Delta going to come from? The time for identifying mitigation measures is now. "The CEQA process demands that mitigation measures timely be set forth, that environmental information be complete and relevant, and that environmental decisions be made in an accountable</p>	<p>The action alternatives would only export water allocated to the SWP and CVP under existing water rights, as limited by hydrologic conditions and regulatory requirements issued by the State and federal agencies. Figures 5-17 and 5-19 of Chapter 5, Water Supply, of the Draft EIR/EIS present the average annual SWP and CVP Delta exports for longer average annual conditions and dry/critical water year types.</p> <p>As shown in Figures C-11-1 through C-11-6 of Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the Final EIR/EIS, the north Delta intake tunnels would not be fully utilized except for several months in wet years. As shown in Figure C-11-6, the north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years. However, it is important to have the maximum</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>arena." (Oro Fino Gold Mining Corporation v. County of El Dorado (3d Dist. 1990) 225 Cal.App.3d 872, 884 885 [274 Cal.Rptr. 720].)</p> <p>In the Final EIR, please identify the potential source of the mitigation flows, and any secondary impacts associated with this mitigation. "If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed." (CEQA Guidelines, sec. 15126.4, subd. (d); Stevens v. City of Glendale (1981) 125 Cal.App.3d 986.)</p>	<p>capacity in the intakes and tunnels to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times.</p>
1617	14	<p>"Such effects are discussed in other chapters throughout this EIR/EIS."</p> <p>This statement is needlessly vague. In the Final EIR, please follow this statement with a listing of the potential physical effects of the tunnels on the environment, and with specific references to the chapters where such effects are discussed in detail. An EIR must be "organized and written in a manner that will be meaningful and useful to decisionmakers and to the public." (Pub. Resources Code, sec. 21003, sub. (b).)</p>	<p>The size and complexity of these drafts reflect an unprecedented effort to analyze a proposed project under both state and federal laws for endangered species along with 17 other action alternatives. For more information regarding the document's length and complexity please see Master Response 38.</p> <p>The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts (using the best available science and modeling), direct and cumulative, that project description is complete and satisfies the requirements of NEPA, and that the project objectives are also precise and complete and satisfy the requirements of CEQA. The lead agencies believe that the 2013 Public Draft EIR/EIS and 2015 RDEIR/SDEIS provided the public and decision-makers with sufficient information on which to make informed comments which have been considered and incorporated into the Final EIR/EIS.</p> <p>Additionally, the language referred to by the commenter has been updated to provide examples of such effects, and to clarify that those effects are found in the respective resource chapters.</p> <p>Comparison tables across all alternatives for each resource area have been added to the Executive Summary of the Final EIR/EIS.</p>
1617	15	<p>If this EIR has shown any significant results it makes clear that California's water system's that deliver water from areas that produce it to areas that do not, are already heavily redundant. Spending billions of dollars on a project that cannot show how much water would actually be available to the tunnels in the DEIR shows that the BDCP is not a viable option for the state both financially or strategically. Planning and policy that involves new sources of water through conservation or reclamation and ensuring that our limited "variable and uncertain" [footnote 11: Ch: 5, sec. 5.1.1, pg. 5-1] water supply is only put to beneficial and efficient, not greedy use, would accomplish much more good for the people and future of the state for remarkably less money.</p>	<p>The results of the CALSIM II model related to exports from the north Delta intakes are shown in Figures C-11-1 through C-11-6 of Appendix 5A, Section C, of the Draft EIR/EIS.</p> <p>See Master Response 6 for discussion about water demand management.</p>
1618	1	<p>The Reclamation District No. 800 hereby incorporates by reference and joins the comments on the Plan and EIR/EIS submitted by the North State Water Alliance, the North Delta Water Agency, the California Central Valley Flood Control Association and Contra Costa Water District (including all attachments to those comments) as though fully stated herein.</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. However, all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest. For more information regarding public comment responses please see Master Response 42.</p>
1619	1	<p>The Delta is in a state of environmental stress due to the loss of wetlands habitat, invasive species, pesticide runoff, a depletion of native food supplies, pumping operations and other factors</p>	<p>No issues related to the adequacy of the environmental impact analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS were raised.</p>
1619	2	<p>The decline in the Delta's health threatens this unique environment and water supplies that are key to the California economy</p>	<p>No issues related to the adequacy of the environmental impact analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS were raised.</p>
1619	3	<p>The Delta's levees are not engineered to protect the state's water supply distribution system from a major earthquake and multiple levee failures could disrupt water deliveries and</p>	<p>No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		the state economy for up to three years	
1619	4	BDCP represents an effort to comply with state and federal environmental laws for 50 years through cooperative effort to revise the Delta's decline  The failure to take decisive actions would be an unacceptable risk to the environment of the Delta and the economy of California	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.
1619	5	The state's preferred alternative is the most promising plan developed to date to solve Delta challenges and resolve decades of conflicts between agricultural, urban and environmental water users with a comprehensive solution that achieves California's Co-Equal goals of reliable water supply and a restored Delta ecosystem	Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. 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.
1619	6	Central Basin Municipal Water District is supportive of the proposed twin-tunnel conveyance system that isolates and protects drinking water supplies and helps restore natural flow patterns in the Delta for the benefit of native species as well as the complimentary habitat restoration, water quality and predator control measures outlined in the BDCP.  NOW, THEREFORE, be it resolved, that the Central Basin Board of Directors supports that the state move forward with the draft BDCP and focus efforts on resolving those remaining issues needed to provide assurances that the plan will achieve California's co-equal goals of water supply reliability and ecosystem restoration in a cost- effective manner	Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. The environmental documentation and project approval will be acted on by the decision makers from each lead agency at the conclusion of the CEQA and NEPA processes.
1620	1	We [Western Growers Association] are writing to express support for California's proposed Bay Delta Conservation Plan (BDCP) and specifically Alternative 4 as outlined in the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The economic survival of thousands of California's farms and the many businesses tied to our agriculture sector is directly related to improving our state's water infrastructure and providing the certainty that is necessary for investment in future development.	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.
1620	2	California currently faces many challenges with our water supply system and major environmental problems within the Sacramento-San Joaquin Delta. It is clear that Alternative 4 of the BDCP represents the best plan to address these issues in a comprehensive way that balances multiple priorities and modernizes the state's outdated water infrastructure. Alternative 4 includes Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5 (9,000 cfs [cubic feet per second]; Operational Scenario H).	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1620	3	California cannot afford to ignore the ongoing crisis in the Delta. Western Growers fully support the state's co-equal goals of water supply reliability and ecosystem restoration for the Delta. The "Preferred Alternative" as outlined in the EIR/EIS is critically important to protecting the California economy and will help meet future demands on water supply as California's population grows. Additionally, the actual construction and environmental restoration activities of the BDCP are estimated to create and protect more than 1 million jobs.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1620	4	The federal Central Valley Project and the California State Water Project are located in the Delta and bring water to 25 million people throughout the Bay Area, Central Valley, and Southern California, and irrigation water to three million acres of the world's most productive farmland. Despite the importance of these systems to these diverse regions, our	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

DEIRS Ltr#	Cmt#	Comment	Response
		state's current infrastructure is outdated and inadequate to handle risks and meet future needs. Without action, the Delta is susceptible to grave threats including seismic risk to levees and many stressors facing key fish species such as salmon. Potential earthquakes, natural disasters, and climate change impacts mean that the status quo is not an option. The time to act is now. Without the system improvements outlined in the BDCP Alternative 4, not only will the Delta fail to receive needed environmental restoration, but farms and farm communities in the San Joaquin Valley and elsewhere will continue to suffer devastating water supply reductions driven by environmental mandates imposed on an inadequate system.	
1620	5	The BDCP is the outcome of years of research, analysis and planning. There has been much debate through hundreds of public meetings and a robust review process. We [Western Growers Association] urge you to move forward with Alternative 4 of the BDCP as quickly as possible for the benefit of farms, businesses, families, and communities across the state. It is the most responsible plan to meet California's environmental and economic objectives, while ensuring safe and reliable water for our state's residents.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1621	1	Reclamation District 1004 supports the comment letter dated July 28th, submitted on behalf of the North State Water Alliance [BDCP 1597], which contains comments on the Bay Delta Conservation Plan, and its associated Implementation Agreement and draft Environmental Impact Statement and Environmental Impact Report. By and through this letter, Reclamation District 1004 adopts each comment and objection in the July 28th letter as its own, along with all exhibits and attachments to that letter, and incorporates herein by this reference all such comments, objections, and documents	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. However, all comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to locate the letter of interest. For more information regarding public comment responses please see Master Response 42.
1622	1	Related to the draft Bay Delta Conservation Plan ("BDCP") and its draft environmental impact statement/environmental impact report ("DEIR/DEIS") released on December 13, 2013, Dudley Ridge Water District ("DRWD") has reviewed portions of those reports and the enclosed July 28 letter from the State Water Contractors ("SWC").  DRWD is an agricultural water user with a contract for State Water Project water that has been highly dependent on a reliable water supply. The trend of reduced and interrupted SWP supplies (due to Delta water quality and threatened-endangered species issues) and resultant increasing costs has significantly impacted DRWD growers and the regional economy. A no-project alternative is not a viable approach.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please note that the BDCP is no longer the preferred alternative. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. The BDCP (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.
1622	2	As with the SWC, Dudley Ridge Water District considers BDCP Preferred Alternative (Alternative No. 4) and implementation of the Preferred Alternative in accordance with the BDCP schedule as the most viable alternative for improving the Delta. Specifically, the proposed twin-tunnel conveyance system, habitat restoration, and predator control measures outlined in the BDCP represent the most positive direction for the State. Saying that, DRWD remains concerned on costs and the affordability of the BDCP for its agricultural landowners. Cost allocations, financing, and assurances will be critical in determining our final support for the preferred alternative.	See response to comment 1622-1. For more information about the BDCP including potential funding, please also see Master Response 5.
1622	3	ATT1: July 28 2014 Letter from State Water Contractors Comments on the Draft BDCP and EIR/EIS	The comment describes an attachment to the comment letter. All comments received during the 2013 and 2015 public comment period are included in the FEIR/EIS. Please refer to the table of commenters to

DEIRS Ltr#	Cmt#	Comment	Response
			locate the letter of interest.
1623	1	<p>What follows are the comments of the Golden Gate Salmon Association regarding the proposed Bay Delta Conservation Plan, or BDCP. GGSA is opposed to the BDCP in its current form because in short, as currently planned, it will eventually wipe out our salmon fishery. It is also premature pending a State Water board determination on Delta outflow requirements.</p>	<p>The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (see, e.g., Cal.Wat. Code, § 85001(c)). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment at south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize construction and operational-related impacts to fish species, salmon, please see Chapter 11, EIR/EIS.</p> <p>Please refer to Master Response 5, BDCP and Master Response 3, Purpose and Need.</p> <p>As described in Appendix 3A, Section 3A.9.3, of the 2013 Public Draft EIR/EIS the State Water Resources Control Board prepared a Delta Flow Criteria Report in accordance with the requirements of the Sacramento-San Joaquin Delta Reform Act of 2009. Information from that report included “determinations of flow criteria for the Delta ecosystem to protect public trust resources. The report makes clear, however, that the flow criteria do not consider the balancing of public trust resource protection with public interest needs for water. The flow criteria also did not consider other public trust resource needs such as the need to manage cold-water resources in reservoirs tributary to the Delta. Nonetheless, the flow determinations contained in the Delta Flow Criteria Report, together with recent scientific conclusions of other State and federal agencies, including the Department of Fish and Wildlife, National Marine Fisheries Service, and the Interagency Ecological Program provide a useful guide to establish one side of a reasonable range of alternatives” (State Water Resources Board letter dated April 19, 2011). The information in the flow criteria report was used to inform the development of the proposed project.</p> <p>Please also see Appendix 5E of the Final EIR/EIS Supplemental Modeling Requested by State Water Resources Control Board Related to Increased Delta Outflows.</p>
1623	2	<p>The BDCP purports to improve conditions for Central Valley salmon by shifting the majority of water diversion in wet years from the existing south Delta pumps to the new intakes in the north Delta. While it is true that the existing water diversions in the south Delta are deadly to salmon and many other species, the BDCP plan calls for continued use of these pumps in addition to the new north Delta intakes. Existing controls on south Delta pumping are likely to be weakened under the BDCP which is sure to cause even more damage to salmon.</p> <p>While it’s true that the primary problem for Central Valley salmon primarily stem from water diversion and other manmade habitat modifications throughout the Sacramento River and Delta, the BDCP plans to take as much or more of the currently over allocated water desperately needed by salmon. Taking even more water out of the system under the BDCP will insure water is not there for salmon when needed. No matter what possible improvements to wetland or flood plain habitat might be made, they won’t compensate for the basic river flows needed to flush juvenile salmon out of the Central Valley in the winter and spring, nor for the water needed for successful spawning in the fall.</p>	<p>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. The Please also Master Response 5 for information about the BDCP.</p> <p>By establishing a point of water diversion in the north Delta and new operating criteria the project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility. The proposed project does not increase the amount of water to which DWR holds water rights or for use as allowed under its contracts. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while</p>

DEIRS Ltr#	Cmt#	Comment	Response
			restoring an ecosystem in steep decline. Refer to Master Response 26 (Area of Origin).
1623	4	<p>The determination of flow criteria by the State Water Resources Control Board (SWRCB) has not been done. The federal agencies participate in the SWRCB processes. The SWRCB process is the correct one to set flow objectives as opposed to the BDCP Delta Water Tunnels process. Moreover, SWRCB determined water quality standards are then subject to Environmental Protection Agency review for approval or disapproval under section 309 of the Clean Water Act. The BDCP process is simply a Department of Water Resources effort to make a premature and unlawful decision to develop the massive Delta Water Tunnels before, rather than after, determining whether updated flow objectives would even allow such quantities of water to be diverted upstream away from the Delta. Selection of the Tunnels alternative is a planning decision. By law, BDCP planning decisions must be informed by SWRCB determinations. The most important BDCP planning decision to ever be made--whether or not to construct new upstream conveyance--cannot be made lawfully until the SWRCB determinations have been made.</p>	<p>Refer to comment 1623-3 for information on the new preferred alternative and on Delta outflow under the BDCP and Alternative 4A. As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, the range of alternatives provides a range of flow criteria, rates of diversion, and operational criteria. One of the potential alternatives considered in Appendix 3A was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights.</p> <p>As described in Section 6.3.4 of Chapter 6, Surface Water, of the FEIR/EIS, the State Water Resources Control Board is conducting a current program to update the Bay-Delta Water Quality Control Plan. Since this program is still under development and the potential outcomes are not known at this time, this program is not included in the analysis. Following completion of the updated Bay-Delta Water Quality Control Plan, SWP and CVP operations would need to be reviewed to determine if the operations continued to comply with the new regulations.</p>
1623	5	<p>BDCP Increases Threats to Upstream Spawning Habitat</p> <p>The draft BDCP document acknowledges fundamental threats to winter run salmon.</p> <p>"In the Sacramento River spawning reaches, modeled water temperatures at Bend Bridge were higher (Figure 5.G-3) and minimum flow rate were lower (Figure 5.G-4) under the ESO compared to EBC2 scenarios, particularly during the ELT. These differences in Sacramento River conditions cause lower survival in ESO scenarios relative to EBC2 scenarios in the alevin and fry stages and are ultimately reflected in lower escapement under ESO." (BDCP Page 5.G-54)</p> <p>And</p> <p>"The number of years with poor redd dewatering conditions would be 11% and 8% higher under ESO_ELT and ESO_LLT relative to EBC2_ELT and EBC2_LLT, respectively." (BDCP Page 5C.5.2-67)</p> <p>Golden Gate Salmon Association agrees with concerns pointed out in earlier feedback from the National Marine Fisheries Service in their so-called red flag comments. Although these comments responded to the administrative draft, the issues they address remain problematic.</p> <p>The NMFS red flag comments warn that the BDCP is expected to cause the extinction of winter and spring run salmon in the main stem Sacramento River. This appears to be a continuing valid concern as evidenced by the BDCP statements above. GGSA believes threats to winter run are likely to also have a deadly effect on the commercially valuable fall run our industry relies on.</p> <p>Page 12, Red Flag Comments</p> <p>...the fact that the cumulative effects of the project when combined with effects of climate</p>	<p>Refer to 1623-2 regarding the change in preferred alternative to Alternative 4A, which no longer includes a 50 year permit term. The lead agencies have revised subsequent documents to address these red flag comments by the fish agencies, or met with those agencies to resolve issues raised in comments. Refer to Chapter 11 (Aquatic Resources) of the FEIR/EIS for information on impacts of the proposed project to aquatic species and mitigation for these impacts, and Appendix 11D of the FEIR/EIS, for results on the temperature modeling used for the fish analysis.</p> <p>Please see also Master Response 25 regarding upstream reservoir operations and Master Response 17 regarding biological resources.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>change and other baseline conditions is showing the potential extirpation of mainstem Sacramento River populations of winter-run and spring-run Chinook salmon over the term of the permit remains as a serious concern.</p> <p>BDCP's own internal analysis show multiple problems including high winter and spring-run salmon egg mortality below Keswick dam in the summer and fall during dry and critically dry years because reservoirs could be drained by exports early in the year.</p> <p>The modeling clearly shows higher river temperatures are expected in many years in the upriver sections critical to spawning and egg incubation. Temperatures exceeding 56 degrees for more than three days are deadly to incubating salmon eggs. Fish may return to spawn, but their eggs will die from the heat. It only takes a few years of conditions like this to wipe out the runs. We already suffer egg loss in the upper river due to excessive water temperatures extending much higher downriver than those targeted in the 2009 salmon Biological Opinion. BDCP promises to make this situation worse.</p> <p>If BDCP conditions extirpate winter and spring run in the main stem, the fall run will certainly also suffer. Many of the same upstream conditions needed by winter run are needed by fall run.</p> <p>Replacement of the existing salmon Biological Opinion with a 50 year BDCP Habitat Conservation Plan could eventually lead to an Endangered Species Act listing of the fall run which in turn will end salmon fishing. The best advocates for salmon and their freshwater needs, salmon fishermen, would disappear.</p> <p>In many recent years, water managers have been unable to attain the preferred 56 degree requirement called for in the 2009 salmon Operational Criteria and Plan Biological Opinion at Bend Bridge, Jelly's Ferry or even Ball's Ferry (which is supposed to be attained 85 percent of the time). Taking even more water out of the system, and taking it earlier in the year, as envisioned under BDCP, will make this bad situation considerably worse.</p>	
1623	6	<p>The Fish Screens Will Be Highly Damaging to Juvenile Salmon</p> <p>Golden Gate Salmon Association incorporates by reference the comments of Dave Vogel, Senior Scientist, Natural Resources Scientists Inc. on the problems posed by the fish screens in his comments titled:</p> <p>June 6, 2014</p> <p>Comments on the Public Draft Bay-Delta Conservation Plan (BDCP) and Draft BDCP Environmental Impact Report/Environmental Impact Statement</p> <p>In short, the sweeping and bypass velocities are insufficient, siting of the screens insures this can't be fixed, the length of the screens are too long and they are sited too close to avoid serious damage to juvenile salmon. Estimation of juvenile salmon losses fail to account for predation when the intakes are not diverting. They also fail to adequately assess the cumulative damage juvenile salmon will experience when impinged on all three intake screens. The BDCP admits the fish screens are likely to provide predator habitat but fails to adequately account for the true losses likely to occur.</p>	<p>Consideration of near-field effects such as entrainment, impingement, and predation was provided in the DEIR/EIS and RDEIR/SEIS; see, for example, the analysis for winter-run Chinook salmon on p. 4.3.7-65 of the RDEIR/SEIS, which considers potential cumulative effects from three intakes, including levels of loss similar to those observed at another large intake on the Sacramento River.</p> <p>For more information regarding impacts to aquatic resources and its mitigation measures please see Chapter 11 of the FEIR/EIS.</p> <p>For more information regarding Environmental Commitments, including localized reduction of predatory fishes, please see Appendix 3B of the FEIR/EIS.</p>
1623	7	<p>Too Little Water Will Remain Below the BDCP Intakes For Salmon Outmigration</p>	<p>The lead agencies revised documents subsequent to the 2013 EIR/EIS to address red flag comments by the fish agencies or met with those agencies to resolve issues raised in comments. Refer to Chapter 11</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Presuming juvenile salmon survive passage by the diversion intakes, survivors will be more likely to get drawn off course into the deep delta through Georgiana Slough or other avenues than under current conditions, which are already very bad. Flows needed to carry them through the Delta would be reduced or absent or dependent on a water users dominated adaptive management panel. BDCP acknowledges the likelihood of increased reverse flows at Georgiana Slough but promises to address the problem by adjusting operations, something GGSA doesn't find credible.</p> <p>"Operations will be managed at all times to avoid increasing the magnitude or frequency of flow reversals in Georgiana Slough." (BDCP Page 4-18)</p> <p>"At this point, implement Level III post-pulse bypass rule (BDCP Table 3.4.1-2) so that bypass flows are sufficient to prevent any increase in duration, magnitude, or frequency of reverse flows at two points of control: Sacramento River upstream of Sutter Slough and Sacramento River downstream of Georgiana Slough. These points of control are used to prevent upstream transport toward the proposed intakes and to prevent any more upstream transport into Georgiana Slough than under existing conditions." (BDCP Page 3.4-17)</p> <p>National Marine Fisheries Service commented on this in its red flag comments:</p> <p>The modeling analysis in the Admin Draft indicates that the Evaluated Starting Operations (ESO) will generally result in a reduction in flows below the north Delta diversions, but that those reductions will not result in increased duration or magnitude of reverse flows at the Georgiana Slough junction. This conclusion is relatively counter-intuitive....</p> <p>Golden Gate Salmon Association agrees that this is not only counter intuitive, it's wrong. Reduced flows downstream of the proposed intakes will undoubtedly result in greater duration and magnitude of reverse flows at Georgiana Slough. These are deadly to out-migrating juvenile salmon. Georgiana Slough is a one way trip to death for juvenile salmon. After being sucked in by reverse flows, the best a juvenile salmon can hope for is to survive to the Delta pumps and be salvaged there. NMFS estimates the vast majority of juvenile salmon sucked into Georgiana perish.</p> <p>The BDCP models clearly show taking much more water from January through June leaves a relative trickle downstream of the new planned diversion intakes. The BDCP presumes this relative trickle will be enough to aid out migration of juvenile salmon downstream of the intakes, through the bay, and safely out to sea.</p> <p>BDCP's own internal analysis shows reduced flows downstream of the North Delta intakes creating a problem in the lower Sacramento River. Flow between Rio Vista and Chipps Island is known to be strong correlate of salmon survival and these flows will be reduced at critical times of the year from January to June, during peak juvenile salmon out migration when more water, not less, is needed in the river.</p> <p>The Evaluated Starting Operations under BDCP consistently worsen flow conditions, and therefore decrease the survival probability compared to EBC2 (existing biological conditions). Flows at Rio Vista during the critical winter and spring out migration under BDCP proposed operations are worse than current conditions, meeting needed flows in less than 40 percent of years in March, versus less than 50 percent of years currently.</p> <p>Golden Gate Salmon Association believes minimum flows at Rio Vista, needed to aid juvenile</p>	<p>(Aquatic Resources) of the FEIR/EIS for information on impacts of the proposed project to aquatic species and mitigation for these impacts, and Appendix 11D of the FEIR/EIS, for results on the temperature modeling used for the fish analysis.</p> <p>Model results show that long-term average Delta outflow under Alternative 4, the BDCP, (scenarios H1 - H4 at LLT) would be similar to that under Existing Conditions and No Action Alternative, with a minor increase in flows during the winter months and a minor reduction in flows during the spring months relative to Existing Conditions due to the shift in system inflows caused by climate change, as well as increased water demand expected in the LLT. In wet water year types, this trend is more evident, while in other water year types, Delta outflow under Existing Conditions and the No Action Alternative is generally within the range of Alternative 4 H1 - H4 scenarios. For more information and specific modeling results for all Alternatives, please refer to Chapter 5, Water Supply, and Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix.</p> <p>Refer to 1623-2 regarding the change in preferred alternative to Alternative 4A.</p> <p>The incremental changes in Delta outflow under Alternative 4A compared to baseline conditions are a function of both the facility and operations assumptions, including north Delta intakes capacity of 9,000 cfs, OMR flow requirements, Fall X2 requirements, and the reduction in water supply availability due to increased north of Delta urban demands, sea level rise, and climate change (the last three assumptions, plus Fall X2 requirements, are included in both the No Action Alternative (ELT) and Alternative 4A, but not in Existing Conditions). Results for the range of changes in Delta outflow under Alternative 4A are presented in more detail in Appendix 5A, BDCP/California WaterFix EIR/S Modeling Technical Appendix. Changes in long-term average Delta outflow under Alternative 4A (ELT) as compared to the No Action Alternative (ELT) and Existing Conditions are shown in Figures 5-37 through 5-39 and Tables 5-10 through 5-12 in Chapter 5.</p> <p>To summarize changes in Delta outflow under Alternative 4A, late-fall and winter outflows remain similar or show minor reductions in Alternative 4A (ELT) compared to No Action Alternative (ELT) and are slightly higher relative to Existing Conditions. In the spring months, outflow would remain similar under Alternative 4A (ELT) as compared to No Action Alternative (ELT), and would be slightly reduced compared to Existing Conditions. In the fall months, outflow under Alternative 4A would increase relative to Existing Conditions, and as compared to the No Action Alternative (ELT), would be similar because of Fall X2 requirements in wet and above-normal years.</p> <p>Refer to Master Response 28, Operational Criteria, and Master Response 17 Biological Resources.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		salmon outmigration are at least 25,000 cubic feet per second during spring migration and these won't be met under most BDCP scenarios.	
1623	8	<p>Size matters</p> <p>Even with three 3,000 cubic feet per second intakes, instead of the five originally planned, the two 40 foot diameter pipes are big enough to divert the entire Sacramento River at most times of the year. Golden Gate Salmon Association believes it likely that two additional intakes could be added at a future date. The best environmental insurance against this would be to downsize the twin tunnels before they are built. The size of the tunnels currently invites adding intakes to eventually take more water. Why do we need 15,000 cfs tunnels to move a maximum of 9,000 cfs of water from the three intakes?</p> <p>Indeed, On BDCP Page 5.B-7, the BDCP points at this, saying: "The 15,000 cfs-capacity tunnels would allow gravity-driven transport of water from the three new 3,000 cfs intakes on the left bank of the Sacramento River".</p> <p>Again, we hearken back to our original position that the size cannot be determined in advance of the State Water Board's Delta outflow determination. BDCP planners have yet to provide a credible reason for proceeding with twin 40 foot tunnels. Only a physical size restriction on the structures, tied to results of the State Water Board Delta outflow decision, will work to protect environmental concerns.</p>	<p>The following Hydraulic Parameters were used for Tunnel Sizing, in conjunction with the information provided in Sections 4 and 5 of the Conceptual Engineering Report dated October 1, 2013 (<a href="http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Conceptual_Engineering_Report-Modified_Pipeline_Tunnel_Option.sflb.ashx">http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Conceptual_Engineering_Report-Modified_Pipeline_Tunnel_Option.sflb.ashx</a>):</p> <ul style="list-style-type: none"> <li>• Manning's equation for friction head loss computations</li> <li>• Manning's n-value = 0.0145 for tunnels</li> <li>• Tunnel Length of approximately 30 miles</li> <li>• Downstream Control is Clifton Court Forebay WS El. = 9 ft</li> <li>• Upstream Control is Intermediate Forebay WS El. = 20 ft</li> <li>• Assume additional minor losses are equivalent to friction losses based on 3% of Tunnel Length. (i.e. Minor Headloss = <math>H_f \text{ for } .03 * L</math>), this does not include other minor losses due to Exit and Entrance losses which must be included.</li> <li>• Gravity fed tunnels</li> <li>• Design Flow = 9,000 cfs</li> </ul> <p>The proposed intakes would only be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards. Flow criteria will be applied month by month and according to water year type. More information on the ranges of water project diversions, based on water year types and specific flow criteria, can be found in BDCP, Chapter 3, Conservation Strategy.</p> <p>Monitoring for compliance with D-1641 requirements or any future requirements for SWP/CVP water supply operations would be conducted year-round in the future under the proposed project.</p>
1623	9	<p>Reliance on Yolo Bypass already required.</p> <p>BDCP planners acknowledge the danger to juvenile salmon poised by the proposed intakes and counter with a plan to shunt juvenile salmon into the Yolo Bypass. Doing so would deliver these fish safely from the intakes.</p> <p>Currently the Yolo Bypass only receives flood waters in years when flows are high enough to overtop the Fremont Weir. The BDCP envisions modifying the weir to flood the bypass in more water year types than is currently the case. Even if the weir is so modified, Golden Gate Salmon Association is skeptical water will be found in dry and critically dry years to flood the bypass and make it work. If it is, even less water will be available as Delta outflow below the intakes and reverse flows will be exacerbated. In addition, the 2009 salmon Biological Opinion already requires steps be taken to bring the Yolo Bypass online as a rearing ground for salmon, regardless of whether the BDCP is built or not. BDCP's baseline description fails to acknowledge this and other environmental improvements required by the salmon and smelt Biological Opinions.</p>	<p>Refer to 1623-2 regarding the change in preferred alternative to Alternative 4A, which no longer includes CM2 or the amount of tidal wetland restoration included in the BDCP.</p> <p>Refer to Master Response 1 regarding environmental baselines and Master Response 5 regarding adequacy of habitat restoration and other conservation measures proposed under BDCP.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>The 2009 salmon Biological Opinion also requires the restoration of thousands of acres of wetland habitat in the Delta to aid salmon recovery. No one should mistake promises from BDCP proponents of wetland restoration as being tied to construction of the BDCP since this is required regardless of whether the BDCP is ever built or not. Again, these required improvements are illegally omitted from BDCP's baseline description.</p> <p>Much of the habitat BDCP proposes to restore is outside areas used by salmon.</p> <p>A considerable percentage of the wetland habitat BDCP proposes to restore in the Delta is not useful to juvenile salmon. Much of it is located in the interior or south Delta which is off the natural migration corridor of most juvenile salmon and therefore would not likely be used as rearing or migratory habitat. BDCP fails to acknowledge this, instead positing that all restored wetland habitat around the delta will aid listed salmon and other species.</p>	
1623	10	<p>Adaptive Management and Governance Dominated by Water Users Are Non Starters</p> <p>BDCP is full of promises to adaptively manage in order to address yet to be known problems or known problems for which the answers are currently not clear. To do this, BDCP propose to vest far too much control in the hands of south of Delta water users over adaptive management decisions affecting listed species.</p> <p>In a study conducted for American Rivers and the Nature Conservancy, study authors found: .. when examined in detail, the draft BDCP blurs the lines between implementation and regulation and grants the permittees unusual decision authority.</p> <p>It's not credible to argue that salmon-friendly decisions will be made in times of drought when water users, representing agricultural interests are the dominant decision making group. Pressure from water users and agricultural interests during the drought of 2014 to waive or weaken salmon protections demonstrates exactly what to expect next time the interests of water users is positioned opposite the interests of salmon advocates.</p> <p>The drought response of 2014 saw the water users succeed in getting the federal Endangered Species Act waived when the Old and Middle River pumping restrictions were exceeded and again when the I/E ratio pumping restriction was waived in the spring of 2014.</p> <p>These experiences in 2014 undermine the idea that adaptive management in BDCP can and will work on behalf of listed species. The salmon fishing community has zero belief that when push comes to shove, adaptive management decisions will be made that favor salmon. We challenge BDCP supporters to point to a single instance where this has occurred with any HCP.</p>	<p>Refer to 1623-2 regarding the change in preferred alternative to Alternative 4A .The implementation structure described in the 2013 public draft BDCP maintains the authorities of DWR, Reclamation, and the state and federal wildlife agencies. DWR owns and operates the State Water Project and will continue to do so under BDCP. Please also see Master Response 5 regarding the implementation structure proposed in BDCP.</p> <p>Considerable scientific uncertainty exists regarding the Delta ecosystem, including the effects of CVP and SWP operations and the related operational criteria. To address this uncertainty, DWR, Reclamation, DFW, USFWS, NMFS, and the public water agencies will establish a robust program of collaborative science, monitoring, and adaptive management. It is assumed the Collaborative Science and Adaptive Management Program (AMMP) developed for Alternative 4A would not, by itself, create nor contribute to any new significant environmental effects; instead, the AMMP would influence the operation and management of facilities and protected or restored habitat associated with Alternative 4A.</p> <p>Collaborative science and adaptive management will support the proposed action by helping to address scientific uncertainty where it exists, and as it relates to the benefits and impacts of the construction and operations of the new water conveyance facility and existing CVP and SWP facilities.</p> <p>The collaborative science effort is expected to inform operational decisions within the ranges established by the biological opinion and 2081b permit for the proposed action. However, if new science suggests that operational changes may be appropriate that fall outside of the operational ranges evaluated in the biological opinion and authorized by the 2081b permit, the appropriate agencies will determine, within their respective authorities, whether those changes should be implemented. An analysis of the biological effects of any such changes will be conducted to determine if those effects fall within the range of effects analyzed and authorized under the biological opinion and 2081b permit. If NMFS, USFWS, or DFW determine that impacts to listed species are greater than those analyzed and authorized under the biological opinion and 2081b Bay Delta Conservation Plan/California WaterFix permit, consultation may need to be reinitiated and/or the permittees may need to seek a 2081b permit amendment. Likewise, if an analysis shows that impacts to water supply are greater than those analyzed in the EIR/EIS, it may be necessary to complete additional environmental review to comply with CEQA or NEPA. A detailed description of the Collaborative Science and Adaptive Management Program is included in Chapter 3, Description of Alternatives, of the Final EIR/EIS and Master Response 33.</p>
1623	11	<p>The American Rivers/Nature Conservancy study found:</p> <p>The regulatory assurances in the Plan, especially the "no-surprises" policy, place undue financial responsibilities on the state and federal governments if certain modifications to the</p>	<p>Refer to 1623-2 regarding the change in preferred alternative to Alternative 4A, which does not include a 50 year permit term. Refer to Master Response 5 regarding the BDCP permit term and Master Response 29 regarding ESA compliance under Section 7.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>Plan become necessary during its 50-year term."</p> <p>Golden Gate Salmon Association agrees. Relative to "no surprises", BDCP seeks a 50 year permit to operate a facility for which there's no good analogue.</p> <p>Proponents of BDCP are seeking a promise that a permit will shield them from unpleasant surprises at some future date if it's discovered the project is illegally taking listed species. Instead, damage to listed species and the environment would more likely be mitigated by taxpayers through state and federal offices, something GGSA disagrees with. At a minimum, a more responsible approach would be to require testing of simulated pieces of BDCP to help answer the many unanswered questions before any permit is awarded.</p>	
1623	12	<p>South Delta Pumps Controls Likely to Weaken</p> <p>The current proposal calls for dual conveyance under various scenarios which would use existing south Delta water intakes in addition to the new proposed intakes, during wet years. Existing weak controls on south Delta diversions would be replaced by a new set of even weaker operational criteria that would leave salmon even more exposed to death associated with south Delta pumping operations than currently.</p>	<p>The proposed project, including both the north delta intakes as well as the South Delta diversion, would be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards. More information on the ranges of project water diversions, based on water year types and specific flow criteria, can be found in Chapter 3, Section 3.6.4.2, North Delta and South Delta Water Conveyance Operational Criteria, EIR/EIS. Current limitations and operational criteria for existing facilities, including operations to protect water quality, can be found in DWR's State Water Resources Control Board Permit D1641 (see <a href="http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/decision_1641/index.shtml">http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/decision_1641/index.shtml</a>) and additional limitations described in the Federal Endangered Species Section 7 Biological Opinions and take permits (see <a href="http://www.usbr.gov/mp/cvo/ocap_page.html">http://www.usbr.gov/mp/cvo/ocap_page.html</a>).</p> <p>USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Refer to Master Response 28 regarding operational criteria and Master Response 29 regarding ESA compliance.</p>
1623	13	<p>The BDCP fails to recover listed species.</p> <p>The BDCP purports to at best, avoid take and jeopardy to listed species. This is a threshold lower than the recovery standard Golden Gate Salmon Association believes any project should be held to. The existing state and federal water projects have been primary reasons two salmon runs are Endangered Species Act listed in California now. Any project that replaces the existing highly flawed system should provide conditions that will recover these listed runs, something BDCP fails utterly at.</p> <p>In short, the current plan to build the BDCP represents a big over reach by those south of the Delta coveting salmon water. These entities make no secret of their disdain for current salmon protections embodied in the 2009 salmon Biological Opinion and have worked tirelessly to get these protections weakened and removed so they can take more water. Northern California's ecosystem needs more of this water, not less, something the BDCP will never provide. Neither Delta smelt, green sturgeon, steelhead, nor winter and spring run salmon will ever recover if more water is taken as envisioned by the BDCP.</p>	<p>Whether a project will jeopardize the continued existence of a listed fish species in a regulatory context is determined by the USFWS and NMFS during the Section 7 ESA consultation.</p> <p>For information about effects of the preferred alternative, Alternative 4A, on salmonids, please see Chapter 11, Fish and Aquatic Resources, which indicates that effects would not be adverse to all covered fish species.</p> <p>Refer to response to 1623-2 regarding the change in preferred alternative to Alternative 4A and regarding changes in exports under the proposed project. Refer to response to comment 1623-12 regarding ESA compliance of the proposed project.</p> <p>Refer also to Master Response 3 (Purpose and Need), Master Response 5 (BDCP), Master Response 26 (Area of Origin), Master Response 28 (Operational Criteria), and Master Response 29 (Endangered Species Act).</p>
1624	1	<p>The Legislature and the Governor have not yet completed their "negotiations" regarding the November 2014 Water Bond ballot measure. Therefore, the California Contract Cities Association's supports a continued Legislative and Executive emphasis on water conservation, necessary infrastructure improvements, the need for shared water resources throughout the State, a focus on innovative solutions to the water crisis as well as the</p>	<p>This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds</p>

DEIRS Ltr#	Cmt#	Comment	Response
		challenge to take important steps to plan for drought and emergency conditions that may arise in the future.	to the specific substantive portions of the comment letter that were submitted by the commenter.  The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1625	1	The Bay Area Council has a long history of advocacy on California's critical water issues that is independent, fact-based and committed to the public interest. As an organization that represents the largest Bay Area companies with hundreds of thousands of employees, and no direct interest in any particular solution to the problem, we also bring a level of perspective unique to many interest groups that will undoubtedly comment on the BDCP initiative.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please note that the BDCP is no longer the preferred alternative. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. The BDCP (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.
1625	2	From Silicon Valley to San Diego, 25 million Californians receive all or part of their fresh water from supplies pumped through the Delta. But the current pumping system has two critical weaknesses: extreme vulnerability to seismic collapse, which presents an intolerable risk to Californians and the regional economy, and the lack of flexibility and structural insensitivity to the ongoing decline of the fragile delta ecosystem. It is the unique combination of economic strength and opportunity, and an independent-minded people, amidst what is the most environmentally rich location on earth, which makes California so special. Susceptibility to seismic collapse and/or ecosystem collapse not only threatens our ability to meet California's water needs, it threatens California's future as the Golden State.	Chapter 9 of the Final EIR/EIS describes the geology and seismicity of the study area. Based on a review of the last 20 years of precast tunnel lining seismic performance histories, it can be concluded that little or no damage to precast tunnel lining was observed for major earthquakes around the world. Based on preliminary data, it is anticipated that the Delta tunnels can be designed to withstand anticipated seismic loads. Design-level geotechnical studies would be conducted to assess site-specific hazards and appropriate mitigation measures would be implemented. Impact GEO- 1 and GEO-7 discusses the possibility of loss or damage resulting from strong seismic activity during construction and operation of water conveyance features. For more information regarding tunnel design please see the 2013 Conceptual Engineering Report.  Please see Appendix 3E, Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies, of the Final EIR/EIS for discussion of potential consequences of an earthquake to exports under a No Action scenario.  Please see Master Response 16 for more information regarding seismic impacts. For more information regarding purpose and need please see Chapter 2 of the FEIR/EIS and Master Response 3.
1625	3	The Bay Area Council has participated in the ongoing technical and policy discussions about BDCP for several years, and there is no question that the status quo in the Delta is unsustainable. During the Stakeholder discussions that led to the Blue Ribbon Task Force's adoption of the co-equal goals of water system reliability and ecosystem health and recovery, there was broad consensus that a dual conveyance system, both through and around the Delta, was the best way of achieving these goals.  We support that position as the cornerstone of our support of the BDCP process.	The comment addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
1625	4	The Bay Area Council have not completed an exhaustive review of the BDCP draft EIR, and we are sure that there will be revisions to some of the mitigation strategies once all of the technical comments have been digested. At the same time, we have observed that the BDCP draft EIR is perhaps the most thorough and readable digest of the major water supply, water quality and environmental issues facing California. We commend the Resources Agency for its leadership of this effort, and its attention to the many complicated details that must be analyzed to arrive at an implementable solution. We support the major findings of the EIR, and believe that we should continue down the BDCP path to arrive at an implementable solution with continued due speed and process.	The commenter's support for the EIR/EIS analysis is noted.

DEIRS Ltr#	Cmt#	Comment	Response
1625	5	Of course, the major concern that people have expressed, and that we share, relates to how the dual conveyance system would be operated, and what effects taking water from the proposed Sacramento River inlets would have on water quality and fish species. A tremendous amount of work was done in the EIR to address this, and while we reserve judgment on the specific modelling results until other more technical reviewers have completed their work, we support the initiative to develop and implement revised water quality goals for the key waterways, and the proposed restoration of thousands of acres for the recovery of important fish species	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria, the proposed project is designed to establish a more natural east-west flow for migratory fish, improve habitat conditions, and allow for greater operational flexibility.
1625	6	The BDCP is not the complete answer to California's water problems. Without additional storage we will not be prepared to implement the "big gulp - little sip" approach (taking lots of water in wet years for use in dry and critically dry years), particularly in light of the hydrologic changes and loss of snowpack associated with climate change. Without additional investments in regional initiatives for integrated water management, recycling, conservation, and ground water management, the state will not be able to support its growth over coming years. As such, the Bay Area Council is very supportive of the "BDCP-plus" ideas that have been discussed by Sunne McPeak and others at the Delta Vision Foundation.  As such, the Bay Area Council believe BDCP is an important piece of the solution, but needs to be complemented by actions in other areas	Although components such as desalination plants and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Please refer to Master Response 5 and Appendix 1C of the Final EIR/EIS for further information on demand management measures, including increasing agricultural water use efficiency and water conservation. See also Master Response 6, Demand Management.  Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the BDCP or EIR/EIS.
1625	7	Two major concerns the Bay Area Council have relate to financing and governance. We question the ability (and perhaps willingness) of some of the water districts—whose financial participation will be required to finance BDCP—to pay their fair share. There are also certain elements of the plan, including habitat restoration, which may be extremely difficult to fund at anticipated levels with general obligation funds, and as the restoration efforts are key component of the environmental recovery plan, those financial requirements need to be included in the overall financing plan.	Please see Master Response 5 for a discussion of project funding and BDCP effects analysis.
1625	8	On governance, there is concern that construction of a large new conveyance system will become a "field of dreams"... (build it and they will pump it), even in dry years when withdrawals need to be moderated. While we understand the BDCP is the basis for regulatory permits from federal and state wildlife agencies whose regulations are there to prevent overpumping, we believe the state needs its own internal controls and governance system to maintain the co-equal goals on which this program is built. Environmental laws and regulatory systems can be changed, and we are looking for some additional work on the governance of the new system before it is built.  To paraphrase Governor Brown, BDCP is a big solution for a big problem. We still have some important questions about BDCP, but we believe it is part of the best available option for addressing the critical issues at hand.	The proposed project's facilities, including water intakes and pumping plants, would be operated in accordance with permits issued by, U.S. Fish and Wildlife Service, National Marine Fisheries Service, State Department of Fish and Wildlife, and the State Water Resources Control Board, among other agencies. The proposed project would be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards. See response to comment 1625-1.  Please also see Master Response 5 regarding the adequacy of the governance structure proposed for the 2013 public draft BDCP.
1626	1	The Castaic Lake Water Agency (CLWA) is a State Water Project (SWP) contractor that serves the 270,000 residents and businesses of the Santa Clarita Valley with imported water. Imported water primarily from the SWP provides about half of our service area's water demand in normal years. We appreciate the opportunity to provide the following comments on the draft Bay Delta Conservation Plan (BDCP) and its draft environmental impact report/environmental impact statement (DEIR/DEIS) released on December 13, 2013. In addition, we request copies of all subsequent documents and notices, including	The Lead Agencies will ensure the requested documents are available for CLWA review. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

DEIRS Ltr#	Cmt#	Comment	Response
		the Record of Decision (ROD).	
1626	2	In recent years, SWP deliveries have been repeatedly interrupted and reduced due to operational conflicts with threatened and endangered Delta species. Additionally, the SWP risks complete failure given the vulnerability of the Delta levee system to catastrophic earthquake and flood events. Such an event could threaten water supplies for Southern California, the Bay Area, the Central Coast and the Central Valley for several years. These risks are unacceptable, and conditions are expected to worsen with climate change unless steps are taken now to mitigate these concerns. The proposed BDCP includes protection and habitat enhancement for special status species in both state and federal endangered species protection laws. Alternative No. 4 of the Draft BDCP DEIR/EIS is the most promising plan developed to date to solve environmental challenges and resolve decades of conflicts between agricultural, urban and environmental water uses with a comprehensive solution that supports California's co-equal goals of a reliable water supply and a restored Delta ecosystem to benefit all water users.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input.
1626	3	Castaic Lake Water Agency Support BDCP and DEIR/DEIS Preferred Alternative  CLWA strongly supports the DEIR/DEIS Preferred Alternative No. 4 with the expectation that the state and federal governments will move steadily forward with its adoption by issuing the Record of Decision and Notice of Determination (NOD) by the end of this year, and by implementing the Alternative No. 4 in accordance with the BDCP schedule.  We support Alternative No. 4's proposed twin-tunnel conveyance system that would isolate and protect drinking water supplies in the event of catastrophic levee failure and help restore natural Delta flow patterns to benefit native species, as well as implementing habitat restoration, water quality and predator control measures set forth in the BDCP. We also support the Alternative No. 4's recognition that changing conditions in the Delta requires ongoing scientific review and monitoring so the plan can effectively adapt over time to emerging science and the evolving ecosystem. The draft plan additionally provides an important framework to address a range of operational outcomes and levels of certainty necessary for a final plan to merit investment by participating public water agencies and by the state and federal governments.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
1626	4	The BDCP process has been transparent and open to the public. Over the last eight years, the BDCP was developed with input from state and federal agencies and independent scientists with more than 600 public meetings and stakeholder briefings. All the documents, over 3,000, are posted online in a commitment to public access and government transparency. Although not required by law a working draft BDCP was released in 2011. In 2012 and 2013, administrative drafts of the BDCP and DEIR/DEIS were released for additional public and agency comment. Public input was used to significantly revise the proposed project to further minimize environmental impacts before the public draft BDCP and DEIR/DEIS were released for comment on December 13, 2013.	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.
1626	5	Numerous economic studies conducted for the BDCP demonstrate the financial benefits in securing a reliable water supply from the SWP for the state, as well as the potential hardships caused by inaction and a deteriorating existing water delivery system. Alternative No. 4's improved water supply reliability, according to a study by the University of California at Berkeley's David Sunding, will protect more than a million jobs throughout California. Without the BDCP, the statewide economic hardship caused by the prolonged	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project (Alternative 4A/California WaterFix) is being considered. Numerous comments were received that focused on various elements of the BDCP. Where the comments focused on elements of the BDCP that overlap with the elements of Alternatives 2D, 4A, or 5A (e.g., CM1 as it comprises of the North Delta Diversions, tunnels, and supporting facilities), specific responses are presented. Where comments raised issues as to whether

DEIRS Ltr#	Cmt#	Comment	Response
		<p>loss of SWP water supply due to a seismic event could result in more than \$40 billion in economic damage statewide. BDCP offers the potential for economic benefits by protecting the state's most important water supply from natural disasters, climate change and further environmental restrictions.</p>	<p>the BDCP and other HCP/NCCP alternatives in the 2013 Draft EIR/EIS were potentially feasible and could function as an alternative for purposes of meeting CEQA and NEPA's requirements to analyze a reasonable range of alternatives to the proposed project (e.g., issues regarding the BDCP Effects Analysis or financial feasibility), responses are presented generally in Master Response 5. Where comments submitted on the BDCP were focused on elements outside the scope of the environmental analysis or viability of the BDCP and other HCP/NCCP alternatives within the context of CEQA/NEPA (e.g., request of specific revisions to the BDCP related to mapping or references), no specific responses are provided and further consideration will be given to these comments, and any revisions to the Draft BDCP would only be made, if an HCP/NCCP alternative was ultimately approved at the conclusion of the CEQA/NEPA process.</p>
1626	6	<p>In addition to the economic studies supporting Alternative No. 4, in the 2009 Legislature enacted the Delta Reform Act, which recognizes BDCP's central role in achieving the coequal goals of reliable water supplies from the Delta and Delta ecosystem restoration. Also, the Governor's recently released California Water Action Plan promotes increasing self-reliance through several measures, including providing a more reliable water supply that protects export supplies from catastrophic outages from earthquakes, major floods and rising sea levels. The Delta Reform Act and the California Water Action Plan highlight the BDCP's importance to the State to improve operational flexibility, protect water supplies and water quality, and restore the Delta ecosystem within a stable regulatory framework. The California Water Action Plan also states that as the Delta ecosystem improves in response to BDCP's implementing conservation measures, water operations will become more reliable, offering more secure water supplies. Beyond these laudable goals, the BDCP aims to restore export water supplies to levels that were realized before the 2008-2009 U.S. Fish and Wildlife Service issued Biological Opinions setting requirements for Federal Endangered Species Act compliance.</p>	<p>The comment is consistent with the acknowledgement that the proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The BDCP/California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).</p> <p>Alternative 4 was developed to improve Delta habitat and SWP/CVP water supply reliability. Through the development of specific operational criteria for Alternative 4, some of the actions in the 2008 U.S. Fish and Wildlife and 2009 National Marine Fisheries Service biological opinion reasonable and prudent alternatives were superseded with Alternative 4 operational criteria, as described in Chapter 3, Description of Alternatives, in the EIR/EIS.</p> <p>Please note that the new preferred alternative is now Alternative 4A (California WaterFix) and does not involve an HCP component. However, the lead agencies maintain that the new preferred alternative continues to meet the co-equal goals of a reliable water supply and a restored Delta ecosystem to benefit all water users.</p>
1626	7	<p>The proposed BDCP Alternative No. 4 is the most comprehensive effort ever undertaken to address the chronic water challenges facing the state and federal water projects in a manner that protects the Delta environment. Delay is no longer an option. It is now time for the state and federal governments to approve and implement the BDCP, which was envisioned as part of the 2009 legislation to improve supply reliability and ecosystem function.</p> <p>Key decisions remain relating to specifics on cost allocations, operations, outflow range, financing and other issues. However, the current Alternative No. 4 draft details a workable solution to the challenges facing the Delta and California's water resources. Castaic Lake Water Agency believes that implementation of Alternative No. 4 is a key part of improvements in water supply, along with new local resource developments and other longer-term federal/multi-state supply and conservation projects, that will be necessary, if we are to secure and improve water supplies and economic future for California's growing population.</p> <p>We urge the state and federal governments to quickly resolve the remaining issues to provide assurances that the BDCP will achieve California's coequal goals of water supply reliability and ecosystem restoration in a cost-effective manner and move forward with</p>	<p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Alternative No. 4.	
1627	1	<p>For nearly five decades, the State Water Project (SWP) has provided a significant portion of Kern County's valley floor water supply, averaging roughly 23 percent of the region's water needs. Even as the County's agricultural and urban conservation efforts continue, the SWP will remain an essential source of water, including by helping to replenish the valley's groundwater basins.</p> <p>In recent years, however, federal wildlife agencies have imposed restrictions on SWP and Central Valley Project (CVP) (collectively, Projects) operations in order to reduce the Projects' impacts on threatened and endangered Sacramento-San Joaquin Delta (Delta) species. As a result, water managers have been forced to significantly reduce both state and federal water deliveries. Additionally, the vulnerability of the Delta levee system to earthquake and flood events puts both Projects at risk of failure. A levee failure would threaten water supplies for the Delta, southern California, the Bay Area, the Central Coast and the Central Valley for up to three years. These risks are cause for concern, especially as conditions are expected to worsen with climate change. The proposed BDCP, being developed under provisions of the state and federal endangered species laws, is, to date, the most promising plan to solve these challenges. The draft plan proposes a comprehensive solution that achieves California's co-equal goals of a reliable water supply and restored Delta ecosystem for the benefit of all water users.</p>	<p>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.</p> <p>The project's proposed dual conveyance facilities would allow water to be moved through the Delta when conditions permit, and allow water to be diverted from the Sacramento River in the northern Delta when conditions in the south Delta do not permit diversions from the existing State Water Project and Central Valley Project facilities. The location of the north Delta diversion facility is less vulnerable to salinity intrusion, a potential impact of sea level rise, or levee failure, in the future. By establishing an alternative diversion point for exports, a great deal of water management flexibility is added. This added flexibility would provide more options for adaptively managing the Delta so that conditions can be optimized to provide the greatest benefits across all Delta water uses and habitat conditions.</p>
1627	2	The East Niles Community Services District, Oildale Mutual Water Company, and Vaughn Water Company applaud the progress made on the BDCP's proposed twin-tunnel conveyance system that isolates and protects drinking water supplies, helps restore natural flow patterns in the Delta for the benefit of native species, and includes habitat restoration and water quality and predator control measures. The Districts support the plan's recognition that changing conditions in the Delta will require ongoing scientific review and real-time monitoring in order to effectively adapt over time to emerging science and the evolving ecosystem. The draft plan also provides an important framework for developing a range of operational outcomes that will provide a level of certainty that merits investment by participating public water agencies and by the state and federal governments.	Operation of the new north Delta facilities will be guided by strict regulations that are set by the SWRCB. Adaptive management and collaborative science will aid operators in managing the pumping schedule in the presence of sensitive species. Appendix B of the RDEIR/SDEIS shows supplemental modeling results for the new alternatives.
1627	3	Key decisions remain relating to specifics on cost allocations, operations, outflow range, financing and other issues; however, the current draft details a workable solution to the challenges facing California's water resources and the Delta.	Please refer to Master Response 5 for information about the current status of the BDCP.
1627	4	The Kern County Water Agency (Agency), of which the Districts are stakeholders, has identified several critical issues related to the yield, cost and assurances of the BDCP. Most notably, the yield of the completed project must not be lower than the recent historical yield of the combined SWP and CVP, and must provide a reliable water supply to all participating contractors. The costs of the project must not exceed the estimates in the draft BDCP (Chapter 8) and must be allocated following a "beneficiary pays" methodology, with Public Water Agencies (PWAs) covering the costs of the water conveyance infrastructure and public funds covering the cost of conservation measures providing public goods. Lastly, the PWAs must have assurances that the BDCP will minimize risks of additional regulatory requirements that would reduce yield from the Projects.	The project proponents have assessed the benefits as described in the funding sources. Notably, the water contractors benefitting from the proposed project and their constituents will bear all costs associated with constructing new conveyance facilities and mitigating for the impacts of those facilities. Expenditures of public money from other sources would be limited to restoration activities beyond those needed to mitigate the impacts of facility construction. 2013 Public Draft Chapter 8, which deals with cost issues, and cost-benefit analysis information are available on the BDCP website. For more information about the current status of the BDCP as well as costs and funding strategies, see Master Response 5.
1627	5	Conveyance Operations . In order to provide water supply reliability consistent with DWR's	Please note that Alternative 4 is no longer the preferred alternative .The shift in ESA compliance strategy

DEIRS Ltr#	Cmt#	Comment	Response
		<p>most recent State Water Project Reliability Report (2011), the proposed conveyance must operate in such a way that additional water required for fish and wildlife will be made up with no net loss to the SWP and CVP contractors.</p> <p>The Real Time Operations proposed in the BDCP and draft Implementing Agreement (IA) are designed with the "purpose of maximizing conservation benefits to covered fish species and maximizing water supplies. (IA pg. 27)" However, it is unclear how the dual maximization will be achieved. Therefore, the BDCP and IA should include specific language stating conservation benefits cannot be increased at the expense of water supply.</p> <p>The Decision Tree described in the BDCP, in addition to being based on an incomplete understanding of the connection between smelt abundance and salinity levels, has the potential to decrease water supplies from the SWP to the point where the proposed conveyance is not financially feasible. Though there are measures still under consideration that could alleviate the risk of water supplies falling below the point of affordability, no specific plan has yet been proposed. The BDCP should include a floor below which water supplies could not fall.</p>	<p>from Section 10 (HCP) to Section 7 Biological Opinion (BO)), negates the need for an IA or associated assurances. As such, the standard is the operation in a manner that does not exceed the take limits expected to be defined in the BO. As with the current regulatory approach, there is no floor for changes in operations if and when reconsultation occurs.</p> <p>Implementing agreements are a requirement under the California Natural Community Conservation Planning Act (NCCPA), and are routinely executed under the ESA Section 10 (HCP) permitting process. Since the current proposed project (Alternative 4A) is no longer a NCCP or HCP, an implementing agreement was not released with the RDEIR/SDEIS or final EIR for the project. Please refer to Master Response 5 for information about the current status of the BDCP.</p>
1627	6	<p>Flexible Pumping Operations in a dynamic Fishery Environment. Water supply conveyance options must allow the greatest flexibility in meeting water demands by allowing the diversion of water where and when it is least harmful to migrating salmon and in-Delta fish species.</p> <p>The new screened intakes proposed by the draft BDCP in the northern, rather than southern, Delta would substantially reduce reverse flow conditions caused when water is pumped from the south and would lead to a more natural flow pattern in the estuary. In this respect, the draft BDCP meets the co-equal goals of improving water supply reliability and enhancing the Delta ecosystem.</p>	<p>The action alternatives generally result in more positive Old and Middle River Flows (less reverse flows) as compared to the Existing Conditions and No Action Alternative. However, except for Alternative 6 which does not include south Delta intakes, reverse flows would continue under the action alternatives in some periods (See Figures C-9-1 through C-9-6 in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the Final EIR/EIS).</p>
1627	7	<p>Climate Change Risks. Conveyance options must reduce long-term risks associated with rising sea levels and salinity intrusion. Intake locations should be able to withstand an estimated 1- to 3-foot sea-level rise in the next 100 years.</p> <p>The proposed intakes in the northern Delta are upstream of predicted climate change driven salinity intrusion. This location will protect water supplies from the effects of levee breach, as well as sea level rise. Impacts to the Delta ecosystem from climate change-related salinity intrusion are not mitigated by moving the intakes to the northern Delta; however, other conservation measures in the draft BDCP are intended to mitigate climate change-related risks to the Delta ecosystem. In this respect, the draft BDCP meets the co-equal goals of improving water supply reliability and enhancing the Delta ecosystem.</p>	<p>As described in response to comment 1627-1, The location of the north Delta diversion facility is less vulnerable to salinity intrusion, a potential impact of sea level rise, or levee failure, in the future. By establishing an alternative diversion point for exports, a great deal of water management flexibility is added. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. For further discussion about climate change risks and resiliency planning, see also Master Response 19. Please see also Master Response 31 and Final EIR/EIS Appendices 3I and 3J or discussion of compliance with the Delta Reform Act.</p>
1627	8	<p>Cost Allocation. The "beneficiary pays" model is the most equitable way to allocate costs for the BDCP between Public Water Agencies and the state and federal governments, between the CVP and SWP contractors, and among the SWP contractors.</p> <p>Costs for each portion of the BDCP must be allocated to the parties benefiting from that portion of the project. In the case of the conveyance facilities, those Public Water Agencies participating in the project should bear the full cost of those facilities. Costs for habitat restoration and other conservation measures providing public goods should be paid from public funds. Chapter 8 of the draft BDCP outlines costs for various conservation measures and allocates to PWAs costs for design, construction, maintenance and mitigation</p>	<p>See response to comment 1627-4.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		of the proposed conveyance. PWAs cannot afford to pay more than these allocated costs. The BDCP should clearly state that the project is contingent upon commitment of state and federal funding for the remaining costs.	
1627	9	<p>Design and Construction Oversight. Well managed budgets and schedules during the design and construction phases are necessary to keep the BDCP affordable.</p> <p>Management of the design and construction phases of the conveyance portion of the BDCP must involve Public Water Agency oversight to ensure budgets and schedules are met. The draft BDCP outlines involvement of the Authorized Entities Group, of which some PWAs may be a part, in the Implementation Office, but lacks clear definition of the management of the design and construction phases of the proposed conveyance. The BDCP and supporting documents must clearly define involvement of the PWAs in managing the budgets and schedules for design and construction of the proposed conveyance.</p>	See response to comment 1627-4. Also please note that Chapter 16, Socioeconomics, of the Draft EIR/EIS was revised based on the revised construction footprint for proposed water conveyance facilities, along with a refined set of construction cost and schedule assumptions developed for Alternative 4. Refer to Chapter 16, Socioeconomics, Section 16.3.3.9, in Appendix A for the revised analysis of Alternative 4. Additionally, one table from Draft EIR/EIS Appendix 16A has been incorporated into Appendix A.
1627	10	<p>Public Funding Shortfall. All funding sources should be based on firm commitments that are clearly defined in order for the BDCP to move forward.</p> <p>The draft BDCP is structured in a way that allows for cooperative funding from several agencies at various governmental levels. However, the project is contingent upon receiving funding from all of these sources in order to provide the desired results. Funding from bonds or appropriations is less certain than the funding provided by the Public Water Agencies. The BDCP should clearly state that a commitment to funding from the state and federal agencies is required for the project to move forward.</p>	See response to comment 1627-4.
1627	11	<p>Regulatory Stability. Conveyance options should minimize risks of additional regulatory requirements that could reduce yield from the Projects.</p> <p>As a Habitat Conservation Plan under Section 10 of the federal Endangered Species Act (ESA) and a Natural Community Conservation Plan under Fish and Game Code Section 2800 et seq., the BDCP offers a path of regulatory stability for both the Public Water Agencies and wildlife agencies. The BDCP should define and describe this regulatory stability and offer a clearer explanation of how this approach differs from the current species-by-species approach to regulation and ESA enforcement.</p>	<p>As noted in response to comment 1627-1, Alternative 4A does not include an HCP or NCCP. The Proposed Project has been developed with the goals of minimizing and avoiding incidental take of listed species to the maximum extent practicable. Chapter 11, Fish and Aquatic Resources, and Chapter 12, Terrestrial Biological Resources, EIR/EIS, describe effects of the proposed project and several alternatives on fish and wildlife species in the Plan Area.</p> <p>Section 7 requires that federal agencies, in consultation with the federal fish and wildlife agencies ensure that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat.</p> <p>Where the alternative does not include preparation of an HCP, ESA compliance for construction and operation of water intakes in the north Delta and associated conveyance facilities would be achieved solely through Section 7. For these alternatives, USFWS and NMFS would not issue a permit and would not act as a lead agency for NEPA compliance. Where Section 7 is the ESA compliance strategy, USFWS and NMFS will assume roles as cooperating agencies for purposes of the NEPA review.</p> <p>Reclamation would be the lead federal action agency for Section 7 compliance where a non-HCP alternative is selected. Reclamation's Section 7 compliance would be expected to also address the Section 7 compliance needs for the USACE permit actions. In cooperation with DWR, Reclamation would prepare a biological assessment (BA) for submission to USFWS and NMFS requesting formal consultation under ESA Section 7.</p> <p>A biological opinion is not required prior to the release of the Draft BDCP/CWF EIR/EIS. 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</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>United States Bureau of Reclamation (Reclamation) to complete biological opinions or a joint biological opinion prior to federal action to carry out the proposed project.</p> <p>For more information please see 1.1.5.2 of Section 1 Introduction of the RDEIR/SDEIS.</p>
1627	12	<p>Permittees. The Public Water Agencies (PWAs) should be eligible for permittee status.</p> <p>The Kern County Water Agency must be among the project permittees in order to assure its active participation in governance of the BDCP. Some PWAs, including the Agency, have applied to become permittees and the language in the BDCP is favorable but unclear. The BDCP should clearly state that PWAs are eligible for permittee status equal to the California Department of Water Resources.</p>	<p>See response to comment 1627-11. In addition see Master Response 5 for additional discussion of governance of the BDCP.</p>
1627	13	<p>Rough Proportionality. The BDCP must be implemented with "rough proportionality" in order to satisfy Natural Community Conservation Plan requirements.</p> <p>The Implementing Agreement states that if the BDCP is implemented as designed, the California Department of Fish and Wildlife (CDFW) will consider the project in compliance with applicable "rough proportionality" requirements. However, many of the restoration and other Conservation Measures are to be paid for with public funds. A shortfall of public funds could therefore put the project in jeopardy. The BDCP should include a provision stating the permits would remain in effect provided the permittees are fulfilling their obligations, even if there is a lack of public funding.</p>	<p>See responses to comment 1627-5 and 1627-11.</p>
1627	14	<p>Biological Goals and Objectives.</p> <p>The biological goals and objectives of the project should be determined on the basis of the best available scientific information regarding the covered species, habitats and natural communities. Biological objective DTSM2.I in the draft BDCP is not based on the best available scientific information and should be deleted or changed.</p> <p>Whereas the stated intent of DTSM2.I is to improve Delta smelt habitat, it fails to do so by defaulting to the use of salinity as a proxy for Delta smelt habitat. Recent scientific information demonstrates that salinity is one characteristic element of delta smelt habitat, but that the species inhabit water with a wide range of salinity, and that other biotic and physical factors must be considered when defining Delta smelt habitat.</p>	<p>The Proposed Project would enable DWR to construct and operate new conveyance facilities that improve conditions for endangered and threatened aquatic species in the Delta while at the same time improving water supply reliability, consistent with California law (see, e.g., Cal.Wat. Code, § 85001[c]). Implementing the conveyance facilities would help resolve many of the concerns with the current south Delta conveyance system, and would help reduce threats to endangered and threatened species in the Delta, including entrainment south Delta export facilities. For instance, implementing a dual conveyance system would align water operations, and their location, to better reflect natural seasonal flow patterns by creating new water diversions in the north Delta equipped with State-of-the-art fish screens, thus reducing reliance on south Delta exports during times of the year when listed aquatic species are present and most vulnerable. For more information on mitigation measures to minimize contraction and operational-related impacts to fish species, including Delta and longfin smelt, please see Chapter 11, Final EIR/EIS. For more information about project biological goals, see also Master Response 17.</p>
1627	15	<p>Adaptive Management Plan. The Adaptive Management Plan should be implemented in such a way that operational changes do not result in a net loss of water from the Projects.</p> <p>Operational changes implemented through the Adaptive Management Plan and other adaptive measures have the ability to impact yield from the Projects. The BDCP mentions a fund through which water could be purchased to meet those operational changes. Details regarding this fund, including its sources, are not clearly defined. The BDCP should clearly state that the Adaptive Management Plan and other adaptive measures will not cause a net loss of water from the Projects. It should also define the Supplemental Adaptive Management Fund as a resource funded by the state and federal government to be used to offset any water costs resulting from implementation of the Adaptive Management Plan.</p>	<p>See responses to comments 1627-1 and 1627-2. For more information about adaptive management and monitoring see Master Response 33. For more information about the current status of the BDCP as well as costs and funding strategies, see Master Response 5.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1627	16	<p>Permit Term. A permit term of 50 years provides the Public Water Agencies with the assurance that water supplies from the proposed conveyance will be relatively stable into the near future.</p> <p>The BDCP is intended to result in a 50-year incidental take permit that cannot be changed beyond the limits of the Adaptive Management Plan, unless the regulatory agencies determine that the species are in jeopardy. However, the permit term is not clearly defined in the draft BDCP, and will not be firm until the permits are issued. The BDCP should clearly state that it is intended to result in permits with a 50-year term.</p>	<p>Please see responses to comments 1627-11 and 1627-12. For more about the current status of the BDCP, see also Master Response 5.</p>
1627	17	<p>The proposed BDCP is the most comprehensive effort ever undertaken to address the chronic water challenges facing the Projects in a manner that is protective of the Delta environment. The East Niles Community Services District, Oildale Mutual Water Company, and Vaughn Water Company urge the state to move forward with the draft plan and focus on resolving the remaining issues, including those identified above, which are needed to provide assurances that the plan will achieve California's co-equal goals of improving water supply reliability and enhancing the Delta ecosystem in a cost-effective manner.</p>	<p>See response to comment 1627-2.</p>
1628	1	<p>The Paradise Irrigation District supports the comment letter dated July 28, 2014, submitted on behalf of the North State Water Alliance [BDCP 1597], which contains comments on the Bay Delta Conservation Plan, and its associated Implementation Agreement and draft Environmental Impact Statement and Environmental Impact Report. By and through this letter, Paradise Irrigation District adopts each comment and objection in the July 28, 2014, letter as its own, along with all exhibits and attachments to that letter, and incorporates herein by this reference all such comments, objections, and documents</p>	<p>Please see responses to comment letter 1597.</p>
1629	1	<p>The proposed BDCP will have tremendous negative impacts on Delta agricultural resources. The primary negative impacts will be caused by conversion of agricultural lands to other uses, degraded water quality caused by intrusion of salt water into the Delta and negative impacts to infrastructure such as flood control and drainage. In addition, there will be severe secondary impacts to Delta agricultural resources caused by the cumulative impacts which will irreparably impair the Delta economy. Some of the negative impacts have been identified and studied in the Draft EIR/EIS, but many have not. Mitigation to diminish the severity of identified impacts has been proposed, but is inadequate to provide for a vibrant and viable Delta agricultural economy.</p> <p>Key ingredients for viable and resilient Delta agriculture are land, high quality water, and infrastructure. Our comments will focus on the impact of the BDCP to these key requirements and are organized around the following:</p> <ol style="list-style-type: none"> <li>1. Consistency of the BDCP with laws and regulations protecting Delta agricultural resources.</li> <li>2. Collective negative impacts of the BDCP on Delta agriculture.</li> <li>3. Unidentified impacts.</li> <li>4. Analysis of proposed mitigation.</li> <li>5. Inadequate study of alternatives.</li> </ol>	<p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project, 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.</p> <p>The commenter's opinion regarding the Draft EIR/EIS agricultural resources analysis is acknowledged. The law concerning CEQA's consideration and protection of agricultural land continues to evolve, and the RDEIR/SDEIS carefully considers the impacts of farmland conversion and the options available for responding to those impacts. Please refer to Master Response 18 regarding agricultural mitigation.</p>

DEIRS Ltr#	Cmt#	Comment	Response
1629	2	<p>The Regulatory Landscape . . . Land:</p> <p>County General Plans value and protect Delta agricultural resources and recognize that agriculture is the foundation of the Delta economy.</p> <p>The Delta Protection Act of 1992 in Section 29703 (a)(c) describes the Delta as an agricultural region of great value and states that the Primary Zone should be protected from the intrusion of non-agricultural uses. This Act created the Delta Protection Commission and directed it to create the Land and Resource Management Plan, which has five land use policies that protect agricultural resources. In addition, pursuant to the Delta Reform Act, The Delta Protection Commission prepared the Delta Economic Sustainability Study, which clearly shows that agriculture is the backbone of the Delta's economy.</p> <p>The Delta Reform Act established the co-equal goals of water supply reliability and ecosystem restoration and conditioned their achievement on the protection and enhancement of Delta resources to include agriculture. Section 29702 (a) states that "The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resources and agricultural values of the Delta as an evolving place." The Delta Reform act also created the Delta Stewardship Council and directed it to develop the Delta Plan. Chapter 5 of the Delta Plan establishes policies and goals to protect Delta agricultural resources (Delta Plan: Pages 183 and 192-198).</p> <p>While the draft EIR/EIS mentions the applicable laws and regulations, it does not demonstrate consistency with county general plans, the Delta Protection Act or the Sacramento- San Joaquin Delta Reform Act.</p>	<p>Generally state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water are not subject to local land use regulations and inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment. However, this EIR/EIS, in assessing whether particular categories of environmental effects are adverse or beneficial (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact. Provisions of these plans are discussed in more detail in Chapter 13, Land Use, Section 13.2.3.</p> <p>Please see Master Response 31 as well as BDCP EIR/EIS Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, regarding the BDCP and consistency with Delta Reform Act. See, e.g., Hall v. Taft (1956), 47 Cal. 2d 177, 183; Town of Atherton v. Superior Court (1958) 159 Cal.App.2d 417 and Lawler v. City of Redding (1992) 7 Cal. App. 4th 778, 784. Please also see Master Response 11 regarding applicability of city and county general plans.</p>
1629	3	<p>The Regulatory Landscape . . . Water:</p> <p>The establishment and operation of the State Water Project (SWP) and the Central Valley Project (CVP) are based on water law that, among other things, establishes the common pool principle, area of origin priorities, and limits water exports to surplus water.</p> <p>Because of the changing definition of surplus water and the need to recognize environmental needs in that equation, a series of steps has been taken over time to establish standards to protect water and Delta environmental quality.</p> <ul style="list-style-type: none"> <li>* The 1995 Bay Delta Plan established salinity standards throughout the Delta.</li> <li>* The Water Resources Control Board in Decision 1641 (D-1641) Chapter 10 assigned responsibility for achieving salinity standards to the SWP and CVP, and because salinity intrusion into the Delta is determined by outflow, Chapter 13 also assigns responsibility for achieving flow standards to the SWP and the CVP.</li> </ul> <p>The BDCP Draft EIR/EIS acknowledges:</p> <ul style="list-style-type: none"> <li>* The importance of flow to control salinity intrusion into the Delta (ES-12 line 1). That outflow under alternative 4 will be reduced up to 864,000AF.</li> <li>* The result will be increased seawater intrusion (8-408lines 36-38).</li> <li>* In addition, modeling shows increased salinity will occur in much of the Delta</li> </ul>	<p>This comment includes background information that was considered in development of the EIR/EIS as described in Chapter 5 and Appendices 3A and 5A. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>(8-436-438).</p> <p>* The result will be regular violations of water quality standards (acknowledged as violation 8H-1 line 17).</p> <p>The Delta Protection Commission recognized that water quality is a key consideration in protecting the resources of the Delta and included policies to protect Delta water in its Land and Resource Management Plan.</p> <p>In 1981, the State of California and the North Delta Water Agency entered into a contract that established salinity standards in the North Delta and other terms and conditions that have not been addressed or analyzed in the Draft EIR/EIS.</p>	
1629	4	<p>The Delta Reform Act of 2009 included a mechanism for the BDCP to be included in the Delta Stewardship Council's Delta Plan. Water Code Section 85320 lists requirements that BDCP must achieve in order to be included in the Delta Plan. The Draft EIR/EIS claims consistency (Appendix 31), but does not achieve the conditions of Water Code 85320 (b)(2)(A) which requires that a series of studies be completed which "... will identify the remaining water available for export and other beneficial uses." The studies may have been performed, but the amount of water available for export has not been determined and is one of the key uncertainties of the BDCP.</p> <p>In addition, the Delta Reform Act of 2009 as explained in Water Code Section 85021 requires that reliance on the Delta in meeting California's future water needs be reduced. Certainly a 50-year permit will be operating in the future, and therefore, the BDCP should demonstrate that it reduces reliance on the Delta through strategies such as regional self-reliance, local and regional water supply projects, and other strategies. On the contrary, the BDCP seems to increase rather than reduce dependence on the Delta as a source of future water.</p> <p>Even though the BDCP Draft EIR/EIS recognizes and explains many of the laws, regulations, and contractual agreements controlling water exports from the Delta, it is meaningless. The document fails to address the operational concerns of those within the Delta and offers no commitment to operate the BDCP in a manner that is consistent with prevailing California water law and issues of priority. The BDCP must be consistent with California water policy, laws, and regulations.</p>	<p>Please see Master Response 31, which provides additional information on the Delta Reform Act. Please also see Response to Comment 1629-1. The Draft BDCP EIR/EIS and the Draft BDCP were prepared in a manner to comply with the 2009 Delta Reform Act, as described in Appendix 31, BDCP Compliance with the 2009 Delta Reform Act, of the Final EIR/EIS. The export patterns for Alternatives 1 through 9 as compared to the Existing Conditions and the No Action Alternative are presented in Tables C-12-1-1 through C-12-25 in Appendix 5A, Section C, Modeling Results, in the Final EIR/EIS.</p> <p>The range of alternatives includes alternatives which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 4H1, 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under Existing Conditions (shown in Tables 5-5 and 5-8). Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under the No Action Alternative (shown in Tables 5-6 and 5-9). Full contract deliveries occur in extremely wet years.</p> <p>The action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements. Reservoir operations and diversions by the SWP and CVP are regulated by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and State Department of Fish and Wildlife to protect aquatic resources and other beneficial uses. The amount of water to be diverted is determined by these agencies based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards.</p> <p>For additional information regarding alternatives development, please see Master Response 4.</p>
1629	5	<p>The Regulatory Landscape . . . Infrastructure:</p> <p>The BDCP Draft EIR/EIS states that the Central Valley Flood Control Board (CVFCB) has no jurisdiction or authority over construction, operation or maintenance of CVP or SWP (6-35 lines 40-41). Flood control is a key element of the infrastructure necessary to protect agricultural values in the Delta. The BDCP and any plans which emerge regarding flood control structures such as the Yolo Bypass and Levees throughout the Delta must be analyzed and be consistent with the State Plan of Flood Control administered by the CVFCB and other state and federal agencies with jurisdiction over Delta flood control. In addition, Water Code Section 85320 (b) states, "The BDCP shall not be incorporated into the Delta Plan and the public benefits associated with the BDCP shall not be eligible for state funding, unless the BDCP does all of the following" and 85320 (b)(2)(E) requires that BDCP studies include "the potential effects on the Sacramento River and San Joaquin River flood</p>	<p>Please see Response to Comment 1629-1.</p> <p>The proposed BDCP habitat restoration and stressor reduction measures (i.e., CM2 through CM21) that are presented in the Draft BDCP including the Yolo Bypass Enhancements are not carried forward fully for California WaterFix (Alternative 4A), except where elements of the former conservation measures are retained to mitigate the potential impacts of the proposed project in compliance with CEQA, NEPA, and other environmental regulatory permitting requirements.</p> <p>Please see Appendix 6A, BDCP/California WaterFix Coordination with Flood Management Requirements, Section 6A.6.2.1.3, FEIR/EIS, for discussions on DWR consistency with the State Plan of Flood Control (SPFC), and Section 6A.6.1.2 for a discussion on project consistency with USACE, CVFPB, and DWR flood standards and regulations. Also, see Appendix 3J, Alternative 4A (Proposed Project) Compliance with the 2009 Delta Reform Act, FEIR/EIS, for information on BDCP/CWF compatibility with the Delta Plan.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		management." This analysis has not been performed.  In addition, the BDCP has not performed the analysis to determine consistency with the State Plan of Flood Control and therefore, is not consistent with local, state, and federal regulations regarding flood control in the Delta. Until the BDCP has performed the analysis and determined that its proposed actions are consistent with the State Plan of Flood Control, there should be no State or Federal funding to support the project.	Refer to Sections 6A.6.3 and 6A.6.4 for potential impacts of the proposed project on Delta levees and flood protection/risk.  Please also see Final EIR, Appendix 6A regarding BDCP/California WaterFix Coordination with Flood Management Requirements.
1629	6	Cumulative Effect of BDCP on Delta Agricultural Resources:  The BDCP will have tremendous negative impacts on Delta agricultural resources. As shown in Table 3-4 in Chapter 3, page 22 of the Draft EIR/EIS, in Table 6-2 Chapter 8, page 6 of the Bay Delta Conservation Plan Public Draft, and in Table 8-1 of the Bay Delta Conservation Plan Public Draft, 150,000 acres of agricultural land will be acquired, converted, restricted or otherwise impacted by BDCP. In analyzing the BDCP's impact on agricultural resources, any action that converts agricultural land to other uses or which will negatively impact the viability and resiliency of the land in the future will negatively impact Delta agricultural resources. Certainly there are different levels of negative impacts such as conversion to marshland versus restriction to field crop, but each of these actions will negatively impact the resource as a whole.	Please see Response to Comment 1629-1. The law concerning CEQA's consideration and protection of agricultural land continues to evolve, and the BDCP/CWF carefully considers the impacts of farmland conversion and the options available for responding to those impacts. Effects of the BDCP/CWF will be subject to aggressive mitigation efforts. Land that is not directly affected by construction or habitat restoration should remain productive. See Master Response 18 for more information regarding agricultural impact mitigation.
1629	7	Many of the negative impacts are recognized in the BDCP draft EIR/EIS; however, because of the way the document is organized and because of the size of the document, the total impact of the BDCP on agricultural resources is indecipherable. For example, water quality impacts will negatively impact agricultural resources, but Chapter 14 (Agricultural Resources) refers the reader to other chapters to try to figure out what the impact on agricultural resources might be (14-12 lines 24-26). Increased salinity in many Delta areas as shown by the modeling (8-437 and Appendix 8H) will have a major impact on Delta agricultural resources, yet in Chapter 14 we are again referred to other chapters (14-15, lines 14 &15), and there is only a general discussion indicating that increased salinity will affect crop selection and production, but the real impact detailing how increased salinity caused by the BDCP will negatively impact resources of the Delta, including agriculture, is not explained in the analysis.	Please also see Response to Comment 1629-1. Cross referencing the reader to another chapter which focuses on a specific resource e.g. water quality, is a typical approach in NEPA and CEQA documents. This approach enables a presentation of impacts within the context of that resource i.e. in a chapter which also includes the regulatory background and setting for the resource, and avoids repetition which would further contribute to the size of an already lengthy document.  Please see Master Response 14, which provides additional information on water quality, including salinity.
1629	8	The Delta Protection Commission recently completed a Delta Economic Sustainability Study, which concluded that agriculture is the major economic force in the Delta and while converting thousands of acres agricultural lands to other uses will certainly negatively impact Delta agricultural resources and the Delta economy, the total impact of this is not considered in the document. A cursory review of impacts identified in the executive summary suggests that the 64 impacts listed below impact agricultural resources and that approximately 20 of them are classified as significant and unavoidable.  - Surface Water: SW 4, 5, 6, 8, 9  - Ground Water: GW 1, 2, 3, 4, 5, 6, 7, 8, 9  - Water Quality: 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 22, 25  - Soils: Soils 2, 7	The cumulative impacts section for each chapter considers the proposed project and other projects that are already planned, or are considered reasonable and foreseeable in the future, per CEQA and NEPA guidelines. Whenever feasible, the document has included mitigation measures and environmental commitments to offset impacts. As discussed in Impact ECON-4 in Chapter 16, California Water Code Section 85089 subdivision (b) specifies that the entities constructing and operating a new Delta conveyance facility will fully mitigate for the loss of property tax revenues or assessments levied by local governments or special districts. Socioeconomic impacts are discussed in Chapter 16, Socioeconomics. Please also note that the new preferred alternative, 4A, has been optimized to result in the least impacts possible and affects substantially less agriculture land than the previous preferred alternative.  For additional information regarding cumulative impact analysis, please see Master Response 9.

DEIRS Ltr#	Cmt#	Comment	Response
		<p>- Agricultural Resources: AG 1, 2, 3, 4</p> <p>- Socioeconomics: ECON 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 15, 17, 18</p> <p>- Noise: NOI 1, 2, 10</p> <p>- Hazards and Hazardous Materials: HAZ 1, 2 Public Health: PH 1, 2, 5</p> <p>Land Use: LU 1, 2, 4, 5</p> <p>- Transportation: TRANS 1, 2, 3, 8, 9, 10</p> <p>The EIR/EIS makes no effort to measure the cumulative effect of all of these many impacts and the devastation they will have on the agricultural resources of the Delta, its legacy communities, businesses, and residents. The effect of these 64 negative impacts must be evaluated both separately and collectively in order to insure that mitigation is adequate to fully mitigate for the negative impacts of the project in its totality. The effects of one negative impact will increase the severity of others. For example, if 50,000 acres are converted from agricultural production to other uses, 50,000 acres are subject to crop restrictions, 50,000 acres go out of production because of water quality impacts, another 20,000 acres go out of production from more frequent flooding of the Yolo bypass, 15,000 acres go out of production because of construction impacts, and another 10,000 go out of production because of traffic, noise and other construction related interference, the combined effects becomes greater than each impact considered separately. In addition, the ability to finance special district operations which provide key agricultural infrastructure such as flood control, drainage and water delivery will be impaired, and more agricultural land will be impacted, businesses that depend on agriculture will close, agricultural jobs will decrease, and the Delta economy will begin a downward spiral. The combined effects of the negative impacts will be devastating. These 64 negative impacts, 20 of which are significant and unavoidable, will destroy the viability, sustainability and resiliency of the Delta economy, its businesses, communities, and the livelihood of its residents.</p>	
1629	9	<p>Unidentified Impacts:</p> <p>The BDCP Draft EIR/EIS is incomplete because it has not recognized, analyzed, and mitigated for the following impacts:</p> <p>During construction, BDCP will cause ten years of major disruptions to residents, agriculture and other businesses with noise, water supply interruption, traffic, and other negative impacts referred to as "short term impacts". Because the combined effect of these impacts could have long- term implications for Delta agricultural resources, and its residents and businesses, construction impacts must be studied as both short and long-term and appropriate mitigation needs to be developed.</p>	<p>Please review the Methods for Analysis and Determination of Effects sections of each resource chapter (Agriculture, Noise, Water Supply, and Transportation) to find the definitions of "short-term" effects used in each resource analysis. Each resource uses different durations to analyze impacts particular to that resource. Additionally, please review the Cumulative Analysis sections in the EIR/EIS, and Section 5 of the RDEIR/SDEIS, to review the analyses of cumulative impacts. Please also see Master Response 9, which provides additional information on cumulative impacts analysis.</p>
1629	10	<p>During construction, in order to de-water construction sites, there will be large amounts of drainage water generated. According to the EIR/EIS, the drainage water will be treated if necessary and discharged into "local drainage channels or rivers" (6-58). How will drainage water be treated? Will treating drain water impact Reclamation Districts and agricultural resources? Will drainage water be discharged into Reclamation District drainage systems? How much drainage water will there be, and do Reclamation Districts have the capacity to remove the extra drainage water? How will the impacts be mitigated?</p>	<p>As described in Chapter 6, Surface Water, and Chapter 14, Agricultural Resources, in the Draft EIR/EIS and the BDCP/California Water Fix Partially Recirculated Draft EIR/Supplemental Draft EIS, during the design phase, DWR would conduct site-specific groundwater analysis to determine the extent of the dewatering activities along the conveyance route, including locations of discharge of the dewatering water. Chemical analyses would be conducted to determine treatment requirements for discharge of dewatering water. As described in Appendix 3B, Environmental Commitments, a Storm Water Pollution Prevention Plan application would be prepared during the design phase for approval by the State Water Resources Control</p>

DEIRS Ltr#	Cmt#	Comment	Response
			<p>Board. This permit would specify the water quality criteria for each receiving water body.</p> <p>DWR would consult with local reclamation districts to ensure that construction activities would not conflict with reclamation district flood protection measures. The effects on agricultural activities are addressed under Agricultural Impact AG-2 (see Chapter 14, Agricultural Resources, in the Draft EIR/EIS). The impacts to agricultural production due to temporary construction activities that could result in disruption of irrigation or drainage infrastructure, and could jeopardize agricultural production. Implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 will reduce the severity of these impacts by implementing activities such as siting project footprints to encourage continued agricultural production; monitoring changes in groundwater levels during construction; monitoring seepage effects; relocating or replacing agricultural infrastructure in support of continued agricultural activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, these impacts could be significant and unavoidable and adverse to agricultural resources.</p>
1629	11	<p>There must be assurances that construction does not impact flood control infrastructure. It is acknowledged that levee roads will suffer damage from construction activities, however, damage to the levees themselves is not considered. To the extent that there is damage to underlying levees, it must be mitigated to eliminate the risk of flood to the Delta communities.</p> <p>Because coffer dams will impede river flows and increase upstream river elevations (6-58), flood risk may be increased. This impact must be analyzed and mitigated.</p> <p>The Yolo Bypass is a flood control structure. Because CM-2 may reduce flood-flow capacity, the Central Valley Flood Control Board, must determine that CM-2 is consistent with the State Plan of Flood Control. Any reduction in flood-flow capacity must be identified and mitigated.</p>	<p>The proposed BDCP habitat restoration and stressor reduction measures (i.e., CM2 through CM21) that are presented in the Draft BDCP including the Yolo Bypass Enhancements are not carried forward fully for California WaterFix (Alternative 4A), except where elements of the former conservation measures are retained to mitigate the potential impacts of the proposed project in compliance with CEQA, NEPA, and other environmental regulatory permitting requirements.</p> <p>Please see Appendix 6A, Section 6A.6.2.1.3, FEIR/EIS, for a discussion on DWR consistency with the State Plan of Flood Control (SPFC), and Section 6A.6.1.2 for information on project consistency with USACE, CVFPB, and DWR flood standards and regulations. Also, see Section 6A.6.3.2 for potential impacts to levee integrity due to increases in construction traffic, and Section 6A.6.3.3 for changes in water surface elevation due to cofferdam installation.</p>
1629	12	<p>As reported in Bulletin 125 Studies conducted in 1967 concluded that increased river elevations will increase seepage into agricultural lands. The full effect of increased seepage caused by coffer dams (6-58) must be analyzed and mitigated.</p> <p>Construction and operation of CM 2-22 will result in increasing populations of endangered species and other conditions which will impact neighboring agricultural resources. Farmers must be indemnified from liability for agricultural practices that are necessary to farm, such as, but not limited to, pumping water.</p>	<p>Final EIR/EIS, Chapter 7, Groundwater, discusses groundwater elevation impacts in GW-1, GW-2-, GW-4 and GW-5. See also Final EIR/EIS Chapter 14, Impact AG-2.</p> <p>Please note that the preferred alternative is now Alternative 4A and no longer includes an HCP.</p> <p>The indemnification of farmers for liability that may arise out of possible improvements to endangered species populations is speculative and beyond the scope of this report.</p>
1629	13	<p>Water quality impacts WQ7, WQ8 and WQ11 all deal with increased salinity in Delta water downstream from the proposed northern intakes. This impact is not adequately analyzed with respect to its effect on agricultural resources. The data shows the number of days standards will be violated and the percent of days in violation (Appendix 8H). This data must be analyzed to demonstrate the magnitude of the violations and the resulting impacts on agricultural resources.</p> <p>a. Increased electro conductivity (EC) may result in changing cropping patterns to less profitable crops or fallowing land. Corn is an important crop for agricultural viability and also for migratory waterfowl. The crop demands high quality water and may no longer be a viable crop choice if EC is too high.</p>	<p>The water quality assessment of the diversion of Sacramento River water under the project alternatives addresses effects on salinity-related parameters in the Delta, including electrical conductivity (EC), and compliance with related agricultural use objectives in the Bay-Delta Water Quality Control Plan and degradation relative to these uses in Impact and WQ-11 (EC) in Chapter 8, Water Quality. Where significant impacts to agricultural beneficial uses would occur due to the alternative, as opposed to other forces including climate change and sea level rise, mitigation to lessen those impacts is provided. Please also see Master Response 14 for additional information on water quality and salinity.</p> <p>Regarding comparison of results between Emmaton and Threemile Slough, there is no existing compliance point at Threemile Slough, nor would there be one under the No Action Alternative. Therefore, the presentation of modeling results for EC at Threemile Slough under the alternatives relative to the EC at Emmaton is appropriate evaluation of compliance with a moved location. The comparison of EC at</p>

DEIRS Ltr#	Cmt#	Comment	Response
		b. It is misleading to compare Sacramento River EC data at Emmaton (existing conditions) to data as measured at Three Mile Slough for the BDCP alternatives (Appendix 8H-5). It would be more appropriate to compare E.C. data at the same location, and there is a high probability that the true comparison would show a greater magnitude of increased EC caused by operation of the BDCP.	Emmaton under each alternative vs. EC at Emmaton under Existing Conditions or No Action fully evaluates the environmental impact of the project at Emmaton, including the impact of moving the compliance location. Note that for Alternative 4, which was the proposed project for the Draft EIR/EIS, the compliance point has been changed from Threemile Slough to Emmaton. Emmaton is also the compliance point for the new proposed project, Alternative 4A, as well as Alternatives 2D and 5A. Please refer to Master Response 14 for additional response regarding the Threemile Slough vs. Emmaton compliance point, as well as exceedance of the EC objective identified in the Draft EIR/EIS.
1629	14	We find the use of the phrase "anomaly" to also be incredibly misleading and ill-defined. Appendix 8H, page 1, line 17 indicates that there may be some modeling anomalies that have masked or distorted results. Modeling is an essential part of the EIR and if the modeling contains errors, omissions or is outdated, the EIR inaccurately describes impacts and evaluates mitigation. Because modeling is such an essential part of the project's description, there is no room for anomalies, errors, omissions or other factors which have distorted the project's description.	The EIR/EIS analysis is based upon comparison of conditions under the action alternatives and conditions under the Existing Conditions and the No Action Alternative. The basis of the hydrologic and water quality model is the CALSIM II model is a monthly model that incorporates assumptions about daily operational changes, and the model results should not be used in a predictive manner to determine absolute values. The electrical conductivity analysis is based upon the DSM2 model that uses the monthly model results from CALSIM II and disaggregates the values using historical patterns for smaller time steps and assumptions for tidal conditions. These types of models are the most appropriate to analyze potential changes due to different operational assumptions for the SWP and CVP. However, as described in Appendix 5A of the Draft EIR/EIS, these models cannot be used in a predictive manner to define absolute values. Rather, they must be used in a comparative manner to indicate basic changes between alternatives or scenarios and understand the sensitivity of changes that could occur from the Existing Conditions and the No Action Alternative.  Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. Please see Master Response 5 for additional detail on the BDCP and the alternatives involving an HCP component.  Please also see Master Response 30 which provides additional information on modelling.
1629	15	The BDCP EIR acknowledges that it will violate water quality and flow standards as required under D-1641. It identifies these violations as significant and unavoidable impacts. The legal questions that come with a project such as this must be addressed. The water quality and the protection of area of origin diverters are a settled matter of California law. The BDCP must demonstrate compliance with the law. To describe a violation of the law as a significant and unavoidable impact is unacceptable.	This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative; however, a modified proposed project, 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.  Alternative 4A would have substantially less effect on Delta water quality such that significant impacts were only identified for electrical conductivity (EC) at Emmaton and Prisoners Point, and mercury associated with the limited tidal habitat restoration that would be implemented. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. An overview of the water quality impact assessment methodology and results is provided in Master Response 30. Please also see Master Response 14.
1629	16	The impact of the BDCP on the terms and conditions of the North Delta Water agency contract with the State of California and the subsequent effect on the agricultural resources within the boundaries of the North Delta Water Agency must be addressed in the EIR.	Please see Response to Comment 1629-1. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.
1629	17	The employment of the "Decision Tree" and "Adaptive Management" results in deferring major decisions about how BDCP is built and operated. The project is not clearly defined and the employment of the "Decision Tree" and "Adaptive Management" result in failure to	Please see Master Response 44 for additional detail on the decision tree and Master Response 33 for additional detail on adaptive management and monitoring.

DEIRS Ltr#	Cmt#	Comment	Response
		adequately describe the project, disclose impacts, and design proper mitigation. The public cannot adequately comment on the Draft EIR/EIS when the employment of the "Decision Tree" or "Adaptive Management" could result in major changes to the project or the operation of the project.	<p>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.</p> <p>Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft BDCP Draft EIR/EIS. Alternative 4 (BDCP) remains a potentially viable alternative and was carried forward in the RDEIR/SDEIS and FEIR/S because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 BDCP Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts.</p>
1629	18	The programmatic study of CM2-22 defers comprehensive description and analysis of major components of BDCP and results in failure to adequately describe the project, disclose impacts and design proper mitigation.	Please see Response to Letter 1629-1. For additional detail on the primary issues being raised with regard to the BDCP or Alternative 4, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5.
1629	19	The Implementation Agreement (IA) has not yet been released. On 5/29/14, DWR announced that a draft IA is being prepared for release, but that it does not contain operating information or financial commitments. Without that information the soon to be released IA fails to meet HCP and CEQA guidelines. A complete draft IA must be available for public review and should restart the beginning of the public comment period as it may impact the validity of previously submitted comments.	Please see Master Response 5 regarding the adequacy of the governance structure proposed for the 2013 public draft BDCP. This comment addresses the 2014 Draft Implementing Agreement (IA), a document detailing the roles and responsibilities of the various agencies under the BDCP (Alternative 4).
1629	20	<p>Analysis of Proposed Mitigation:</p> <p>The California Environmental Quality Act (CEQA) requires that mitigation be feasible (section 15126.4(a)(1) as defined (Section 21061.1), fully enforceable (section 15126.4(a)(2) and adequately financed and monitored (section 15097).</p> <p>Many proposed mitigation measures in the BDCP Draft EIR/EIS are inadequate. For example WQ11 states "Avoid, minimize, or offset as feasible reduced water quality conditions." This mitigation measure is discretionary, deferred, unfunded and may not be feasible. Mitigation for WQ11 is expanded by WQ11a "Conduct additional evaluation and modeling of increased EC levels following initial operations of CM1." This mitigation measure is inadequate because it only studies the condition creating the impact and does not offer a feasible, funded, legally binding action to offset or mitigate the impact.</p>	Alternative 4A would have substantially less effect on Delta water quality such that significant impacts were only identified for electrical conductivity (EC) at Emmaton and Prisoners Point, and mercury associated with the limited tidal habitat restoration that would be implemented. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. A detailed discussion of the mitigation that will be used to offset water quality impacts is included on the EIR/EIS Mitigation Monitoring and Reporting Plan. This plan provides detail on each measure including information on the action, parties responsible for implementing the mitigation measure, responsible parties, location, timing, monitoring, and reporting requirements.
1629	21	<p>Another example of inadequate mitigation is the Agricultural Land Stewardship Plan (ALSP) proposed as mitigation for AG 1, 2, 3, 4 and ECON 6, 7, 12, 13, and 18. "Agricultural land stewardship means farm and ranch landowners—the stewards of the state’s agricultural land -- producing public environmental benefits in conjunction with the food and fiber they have historically provided while keeping land in private ownership (California Water Plan Update 2005, Agricultural Land RMS)." Continued agricultural production is a key element of the definition of agricultural land stewardship. In the BDCP draft EIR/EIS, BDCP proponents are tasked with developing ALSPs by choosing from a group of strategies to offset impacts. Some of the suggested strategies are:</p> <p>1. Strategy A: Have farmers manage habitat land (14B-14).</p>	<p>Mitigation Measure AG-1 (Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones) is a 3-part mitigation measure. The first part of this mitigation measure (i.e., Promote Agricultural Productivity of Important Farmland) addresses actions that would be taken to maintain agricultural productivity of the sites involved. Mitigation Measure AG-1c (Consideration of an Optional Agricultural Land Stewardship Approach or Conventional Mitigation Approach), which the commenter is referring to, represents a mitigation approach that would be implemented to mitigate impacts that cannot be otherwise mitigated by Mitigation Measure AG-1a or Mitigation Measure AG-1b.</p> <p>Mitigation Measure AG-1c requires that either a "Conventional Mitigation Approach" or an "Optional Agricultural Land Stewardship Approach" be implemented. The conventional approach involves the purchase of interests in agricultural land that would require the preservation and/or enhancement of land of similar agricultural quality to the land being lost to agricultural uses under the BDCP actions, which would</p>

DEIRS Ltr#	Cmt#	Comment	Response
		<p>2. Strategy C: Designate habitat production as agricultural production (14B-14).</p> <p>3. Strategy E: Work with counties to include habitat lands in Williamson Act Preserves (14B-15).</p> <p>4. Strategy Q: Consider opportunities to develop sustainable agricultural land community in the Delta Region consistent with ecosystem conservation and restoration (14B-17).</p> <p>None of these strategies is consistent with the definition of agricultural land stewardship because they do not provide for production of food and fiber. The ALSP is inadequate as mitigation because it allows the project proponents to choose from a group of strategies, some of which advance biological goals of the BDCP rather than mitigate for impacts to agricultural resources. In addition, ALSP mitigation is inadequate because it is not defined, and therefore, is not feasible. It is not enforceable nor is it funded.</p>	<p>help maintain agricultural productivity.</p> <p>The proposed Optional Agricultural Land Stewardship Approach does not focus principally on physical effects, but on maintaining agriculture and economic viability in the Delta, taking into consideration the desire of individual Delta farmers to continue working on their land, the long-term viability of regional agricultural economies, the economic health of local governments and special districts, and the Delta as an evolving place. It is not stated that the optional Agricultural Land Stewardship will or must “provide for production of food and fiber”. It is noted, however, that where Mitigation Measures AG-1a and AG-1b are not sufficient to mitigate to a less than significant or adverse level the impacts from the conversion of Important Farmland or of land subject to Williamson Act contracts or in Farmland Security Zones they will consult with all of the following (i) the County in which the affected property is located; (ii) the owner(s) and/or operator(s) of said property; (iii) the California Natural Resources Agency; (iv) the California Department of Water Resources; (v) the Central Valley Flood Protection Board; (vi) the California Department of Conservation; (vii) the California Department of Food and Agriculture; (viii) the California Department of Fish and Wildlife; (ix) the Delta Stewardship Council; (x) the California Delta Protection Commission; and (xi) the Delta Conservancy; (xii) the United States Fish and Wildlife Service; (xiii) the National Marine Fisheries Service; and (xiv) the U.S. Department of Agriculture, including the Natural Resources Conservation Service. Where the entities listed in “i” and “ii” above have a preference for participating in an optional ALSP, the BDCP proponents shall attempt to develop one acceptable to the County, the land owner and/or operator, CDFW, USFWS, and NMFS. The optional ALSP would seek opportunities to protect and enhance agriculture in the Delta as part of the project landscape and focus on maintaining economic activity on agricultural lands instead or in conjunction with the Conventional Mitigation Approach for purposes of CEQA/NEPA mitigation.</p> <p>Some of the ALSP strategies anticipate expanding the role of the farmer into areas outside the traditional definitions of food and fiber production. However, the suggested changes reflect real changes occurring in markets evolving to stimulate the need for new environmental services. The unique aspects of the changes noted in the comment is that the markets would value resources produced in place, rather than transported for use elsewhere. They recognize that new incentives for environmental services, such as carbon sequestration, encourage valuing a public benefit as an economic good. To the extent the noted strategies A, C, E and Q reflect the potential to value nonmobile products of land stewardship, they are new, but still growing products of the land.</p> <p>The law concerning CEQA’s consideration and protection of agricultural land continues to evolve, and the BDCP carefully considers the impacts of farmland conversion and the options available for responding to those impacts. Please refer to Master Response 18 regarding BDCP agricultural mitigation.</p>
1629	22	<p>Even though the BDCP will negatively impact up to 150,000 acres of Delta agricultural resources (Table 3-4, Chapter 3 page 22 Draft EIR/EIS), Appendix 8A of the Bay Delta Conservation Plan Public Draft (8.A.7.1 page 8-A-169 line 11) states, “EIR/EIS mitigation requirement would be 1,752 acres.” This analysis is based upon permanent conversion of approximately 45,000 acres of important farmland inappropriately offset by 43,174 acres placed in a cultivated land reserve to benefit covered species impacted by the BDCP. Because both converting agricultural resources to other uses and restricting agricultural resources in a cultivated land reserve (BDCP chapter 3, Section 3.4.11) negatively impacts agricultural resources, concluding that 1,752 acres constitutes adequate mitigation is ludicrous. Mitigation must reduce, minimize or offset negative impacts caused by the project. Negative impacts should be cumulative, not offsetting.</p>	<p>Table 14-8 provides a summary of temporary and short-term acreage and permanent acreage of Important Farmland that could be converted to non-agricultural uses with implementation of Conservation Measure 1 under each action alternative except Alternative 4a. Agricultural land converted under Alternatives 4a would be less than under the other action alternatives, as described in Chapter 14. The acreages shown in Table 3-4 for Conservation Measures 3 – 10 would vary depending on the alternative selected. A total of 65,000 acres of tidal habitat would be restored under all action alternatives except Alternative 5 (25,000 acres). A total of 10,000 acres of seasonally inundated floodplain habitat would be restored under all action alternatives except Alternative 7 (20,000 acres). A total of 20 linear miles of channel margin habitat would be enhanced under all action alternatives except Alternative 7 (40 linear miles). The action alternatives excluding Alternatives 4a, 5, and 7, would restore 83,800 acres under conservation measures geared toward the restoration of various natural communities. Substantially fewer acres would be restored under Alternatives 4a, 5, and Alternative 7 would restore 93,800. See Master Response 18 for more information regarding</p>

DEIRS Ltr#	Cmt#	Comment	Response
		Mitigation as proposed in the BDCP draft EIR/EIS that is discretionary, deferred, unfunded, not enforceable, ungoverned or where feasibility has not been determined, is inadequate. In addition, in cases where mitigation does not meet minimum CEQA guidelines, "impact after mitigation" must be reevaluated to determine significance.	agricultural impact mitigation. Please see Master Response 4 regarding alternatives development.
1629	23	<p>Inadequate Study of Alternatives:</p> <p>The development of the BDCP began in 2006. Between 2006 and the release of the 2013 Draft EIR/EIS, a great deal of effort has been spent designing Alternative 4. Alternative 4 changed from a canal to tunnels, from five (5) diversion sites to three (3), from 15,000 cubic feet per second (cfs) to 9,000 cfs, from tunnel muck disposal sites to treatment and reuse of excavation material to name a few of the changes. The other alternatives remained static. Alternative 4 has been pursued through the courts in an effort to gain access to private property in order to conduct onsite surveys of environmental and geophysical conditions and has been described in detail in informational material throughout the process leading up to the release of the BDCP Draft EIR/EIS. On May 12, 2014, a month before close of comments on the Draft BDCP EIR/EIS, the Department of Water Resources (DWR) announced that a new organization has been created within DWR to continue moving the twin tunnel project forward. The new entity will be responsible for designing and constructing the project. All the other alternatives presented in the Draft BDCP EIR/EIS have received very little real analysis and have been presented simply as a formality to satisfy legal requirements and will receive no consideration by the new entity created to plan and build the twin tunnel project. In addition, several alternatives suggested by the public have been dismissed with very little, if any, analysis.</p> <p>Because of the preferential analysis and focus on Alternative 4, not all alternatives were studied in equal detail nor have any of the alternatives presented by the public been analyzed in equal detail. Continuing to design the twin tunnels (alternative 4) and establishing an entity to construct the project long before close of comments on the Draft EIR/EIS implies that the CEQA/NEPA process is just a formality and the process is not meant to provide meaningful public participation and input on projects that will have long-term environmental, economic and human impacts. The bottom line is that alternatives have been proposed, left unstudied and could potentially supply similar benefits without the devastation of the Delta communities, agricultural resources and local economies.</p>	Please see Master Response 4 which provides additional information on alternatives.
1629	24	The more water that is taken from the Sacramento-San Joaquin River Delta, the more economic and environmental damage will occur. Over the last two decades, Delta outflow has been regulated to protect the Delta water quality and natural resources including agriculture. The BDCP will reverse the steps taken to protect the health of the Delta and its economy by providing the means to increase water exports, reduce Delta outflow, and increase saltwater intrusion. The BDCP Draft EIR/EIS confirms that the preferred alternative will devastate Delta agricultural resources, the Delta economy and Delta communities. The Delta Caucus is convinced that there are better, more affordable projects to advance water reliability for California -- projects that will impact the supply/demand equation by reducing demand and increasing supply. Regional self-reliance and increased water storage is key to reliability of water supplies in the future. Neither of these key elements is included in the Draft BDCP. The Delta Caucus remains committed to ensuring that Delta agricultural resources are protected and enhanced in accordance with the Delta Reform Act of 2009 and searching for solutions which will achieve the Delta Reform Act's co-equal goals without	<p>As described in this comment, Alternative 4 in the Draft BDCP EIR/EIS would result in lower Delta outflow and higher Delta exports as compared to the No Action Alternative, as shown in Appendix 5A, Section C, of the BDCP EIR/EIS. Salinity would decrease in the western Delta under Alternative 4 as compared to the No Action Alternative; however, salinity would increase under all of the portions of the Delta. The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The BDCP/California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta.</p> <p>Please see Master Response 31, which provides additional information on the Delta Reform Act and Master Response 14, which provides additional information on water quality.</p>

DEIRS Ltr#	Cmt#	Comment	Response
		sacrificing Delta agricultural resources.	
1629	25	[ATT 1: List of 27 questions that should be addressed in preparing the BDCP Final EIR/EIS. Submitted by the Delta Caucus July 23, 2014.]	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 comment referencing the attachment or the Final EIR/EIS.