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| 1560 | 1 | <p>The Draft IA states that the Implementing Agreement is being entered into by "the State of California, acting through the California Department of Water Resources (DWR) and the California Department of Fish and Wildlife (CDFW) of the State of California Natural Resources Agency, certain State Water Project and Central Valley Project contractor water agencies (SWP/CVP Contractors), and the United States, acting through the Fish and Wildlife services (USFWS) of the United States Department of the Interior and the National Marine Fisheries Service (NMFS) of the United States Department of Commerce." Draft IA, Section 1.0, Page 1. It further states that the level of agency signatory has not been determined and will be considered further.</p> <p>Irvine Ranch Water District (IRWD) suggests that the Governor, Secretary of the Interior, and the Secretary of Commerce be the signatories for the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFW), and the National Marine Fisheries Service (NMFS), respectively. Having the Governor and the Secretaries sign on behalf these state and federal agencies helps ensure that the United States and the State of California live up to their obligations under the Implementing Agreement. Furthermore, having these individuals sign the Implementing Agreement ensures that the correct level of agency signatory is obligating the United States and the State of California for commitments made beyond those of the Authorized Entities (DWR and SWP/CVP Contractors).</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). Note that Alternative 4 is no longer considered to be the preferred alternative. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. Alternative 4 remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in the RDEIR/SDEIS after completing the CEQA and NEPA processes, elements of the conservation plan contained in the alternatives in the 2013 Public Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. 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> |
| 1560 | 2 | <p>B. Bureau of Reclamation's Role (Section 1.0, Page 1& Section 5.0 Page 15):</p> <p>Section 1.0 also states that the Bureau of Reclamation will not be a party to the Implementing Agreement (IA), and that there are no obligations established on behalf of the Bureau of Reclamation in the Implementing Agreement. Section 5.0 of the Draft IA provides that the Bureau of Reclamation will instead "enter into a Memorandum, or similar agreement, with the Parties that sets out Reclamation's roles and responsibilities pursuant to the BDCP."</p> <p>The entered-into memorandum or similar agreement should be attached to the Implementing Agreement as an exhibit and should be incorporated by reference into the final Implementing Agreement. References to the exhibit should be added to both Section 1.0 and Section 5.0. Likewise, the memorandum or similar agreement should attach the Implementing Agreement as an exhibit and incorporate it by reference. This cross-referencing will ensure that all of the agreements establishing the parties' responsibilities and obligations under the BDCP are linked.</p> | <p>See Response to Comment 1560-1.</p> |
| 1560 | 3 | <p>Definition of Adaptive Management Team (Section 3.1, Page 5)</p> <p>Irvine Ranch Water District has been an advocate that the BDCP must incorporate a collaborative, science-based approach built on independent, unbiased research including a clearly articulated conservation strategy that reflects the impact and responsibility of all Delta stressors. The Draft Implementing Agreement defines the Adaptive Management Team as the entity responsible for establishing performance measures and monitoring of the BDCP's biological objectives and Conservation Measures. The Adaptive Management Team is also to solicit independent scientific reviews, and develop proposals to modify Conservation Measures, biological objectives and other actions. This is an appropriate role for the Adaptive Management Team; however, the definition should make clear that the Adaptive Management Team is to select specific, measurable, achievable, relevant</p> | <p>See Response to Comment 1560-1. For an overview of the adaptive management approach, please see Master Response 33.</p> |

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| | | and time-bound performance measures. The definition should also state that the Adaptive Management Team is to take a science-based approach when making its decisions on the effectiveness of the biological goals and Conservation Measures, and that any proposed modification to the goals or measures should be based on independent, unbiased research. | |
| 1560 | 4 | The Draft Implementing Agreement, in Section 3.1, lists the SWP/CVP Contractors as voting members of the Adaptive Management Team. Given the team's role in understanding the effectiveness of the BDCP's ecosystem improvements and Conservations Measures, it is appropriate that the SWP/CVP Contractors, who hold extensive responsibility for funding and implementing the BDCP, are included as voting members on the Adaptive Management Team. This arrangement should be maintained in the final Implementing Agreement. | See Response to Comment 1560-1. For details regarding the implementation and governance structure, please see Master Response 5. For an overview of the adaptive management approach, please see Master Response 33. |
| 1560 | 5 | D. DEFINITION OF "COVERED SPECIES" (Section 3.20, Page 7): Section 3.20 of the Draft Implementing Agreement defines "Covered Species" and states that a list of the Covered Species, both listed and non-listed species, is provided in Exhibit "A". Exhibit "A" is important to understanding the species for which take may be authorized and to understanding the risk being undertaken by the Permittees. Additionally, those species listed in Exhibit "A" link directly to the species for which the Permittees have been given "no surprises" protection. Given the importance of Exhibit "A" to understanding the roles and responsibilities of the various parties implementing the BDCP, the exhibit should be released for public review before the Implementing Agreement is finalized. All known species in the plan area should be included in Exhibit "A". | See Response to Comment 1560-1. 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. The RDEIR/SDEIS addresses effects on special-status species, including non-listed species. 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 of the Final EIR/EIS, 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. Chapters 11 and 12 of the EIR/EIS include in-depth, comprehensive analyses of potential effects on all endangered fish and wildlife known or expected to occur in the BDCP Plan Area. |
| 1560 | 6 | E. DEFINITION OF " UNFORESEEN CIRCUMSTANCES" (Section 3. 59, Page 10): Section 3.13 of the Draft Implementing Agreement defines "Changed Circumstances" as meaning "changes in circumstances affecting a species or the geographic area covered by the BDCP that have been reasonably anticipated by the Parties and that have been planned for in the BDCP." It also defines "Changed Circumstances" as meaning a "reasonably foreseeable circumstances that could affect a Covered Species or the Plan Area." Section 3.13 further states that "Changed Circumstances and planned responses to those circumstances are described in Chapter 6.4.2. Changes in circumstances that are not identified as Changed Circumstances will be treated as unforeseen circumstances." Section 14.0 of the Draft Implementing Agreement also states that "The BDCP identifies changes in circumstances that are reasonably foreseeable and that could adversely affect reserve system lands or waters in the Plan Area, consistent with the "changed circumstances" provision of the ESA regulations and in the NCCPA." This means that Unforeseen Circumstances, by definition, are those circumstances that were not reasonably anticipated or reasonably foreseeable, and were not planned for in the BDCP. The definition of "Unforeseen Circumstances" provided in Section 3.59 of the Draft IA clearly states that Unforeseen Circumstances are those changes in circumstances affecting a Covered Species or the geographic area covered by the BDCP that could not reasonably have been anticipated at the time of the BDCP's negotiation and development. It does not include the second criteria contained in the Changed Circumstances definition referencing Unforeseen Circumstances- that the circumstances | See Response to Comment 1560-1. |

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| | | <p>were not planned for in the BDCP. Since the reasonably foreseeable changes in circumstance have been included in the BDCP, the definition should be modified as follows:</p> <p>"Unforeseen Circumstances" means (a), in the context of the ESA, changes in circumstances affecting a Covered Species or geographic area covered by the BDCP that could not reasonably have been anticipated, and were therefore not included in the BDCP, by the Permittees, USFWS or NMFS at the time of the BDCP's negotiation and development, and that result in a substantial and adverse change in the status of a Covered Species (50 C.F.R. [Sections] 17.2 and 222.102), and (b), in the context of the NCCPA, changes affecting one or more species, habitats, natural communities, or the geographic area covered by a conservation plan that could not reasonably have been anticipated at the time of Plan development, and were therefore not included in the BDCP, and that result in a substantial adverse change in the status of one or more Covered Species (Fish & Game Code [Section] 2805(k)).</p> <p>Of the many assurances to be provided for, the Implementing Agreement should provide strong protections from unforeseen circumstances and prohibit new requirements from being placed on water conveyance operations for impacts to newly impacted species or species covered by the plan. The holistic approach to the Delta ecosystem envisioned in the BDCP should account for all of the probable impacts to species in the Delta.</p> | |
| 1560 | 7 | <p>F. OBLIGATIONS OF AUTHORIZED ENTITIES & FISH AND WILDLIFE AGENCIES (Section 7.1 , Page 11 & Section 7.2, Page 16):</p> <p>Section 7.1 properly lists one of the obligations of the Authorized Entities as funding a portion of the Conservation Strategy, and Section 7.2 properly lists one of the obligations of the Fish and Wildlife Agencies as funding a portion of the Conservation Strategy. These sections of the Draft Implementing Agreement should be amended to provide greater specificity around which portion of the Conservation Strategy is to be funded by the Authorized Entities and which portion is to be funded by the Fish and Wildlife Agencies. Providing greater specificity around this point will provide clarity on which portions of the Conservation Strategy will be borne by the state and federal governments, and which will be borne by the SWP/CPV Contractors</p> | See Response to Comment 1560-1. Master Response 5 outlines the current status of the BDCP and includes information regarding funding. |
| 1560 | 8 | <p>G. TAKE AUTHORIZATIONS ISSUED TO OTHER AUTHORIZED ENTITIES (Section 8.2, Page 18)</p> <p>The Draft Implementing Agreement recognizes that certain third parties may seek take authorizations under the BDCP for ongoing operation of water diversions that are not associated with the SWP/CVP Contractors. These parties are to be considered Other Authorized Entities. A sentence should be added to Section 8.2 of the Draft IA clarifying that the SWP/CVP Contractors shall not be held liable or be asked to take actions by U.S. Fish and Wildlife Service, National Marine Fisheries Service or California Department of Fish and Wildlife as a result of Other Authorized Entities violating the terms and conditions of any take authorization issued by the Department of Water Resources. Also, the section references Exhibit "C", which has not been released. Exhibit "C" should be released for public review prior to the Implementing Agreement being finalized.</p> | See Response to Comment 1560-1. See also Master Response 5, for a discussion regarding the implementing agreement including "take" authorizations and alternatives to "take". |

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| 1560 | 9 | <p>Take authorizations for non-listed, covered species and fully protected species (Section 8.5, Page 19 & Section 8.6, Page 19).</p> <p>Section 8.5 and Section 8.6 of the Draft Implementation Agreement (IA) outline the take that will be authorized by the fish and wildlife agencies. Section 8.6 provides that the California Department of Fish and Wildlife (CDDW) agrees that "the BDCP includes measures that are intended to avoid, to the maximum extent practicable, the take of any full protected species as a result of the implementation of covered activities." A similar statement should be added to Section 8.6 that indicates the CDFW, the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) agree that the BDCP includes measures that are intended to avoid, to the maximum extent practicable, the take of covered species (both listed and non-listed) and agreeing to grant the take authorization in the state and federal permits.</p> | See Response to Comment 1560-1. See also Master Response 5. |
| 1560 | 10 | <p>Decision Tree Process (Sections 10.2.1-10.2.1.5, Pages 24-27)</p> <p>The provisions related to decision-tree process include a reference to the permit terms and conditions regarding flow criteria. Specifically, Section 10.2.1.1 states that "It is expected the U.S. Fish and Wildlife Service, National Marine Fisheries Service or California Department of Fish and Wildlife will issue Permits for the proposed project, which may include as permit terms and conditions the operational and flow criteria related to the high-outflow scenario in the application." It is important that the decision-tree process equally and fully evaluate with sound science all outflow scenarios before a decision is made. The high outflow scenarios should not be predisposed as being the outcome that should be included in the permits' terms and conditions. The statement in Section 10.2.1.1 should be amended to reflect this.</p> | See Response to Comment 1560-1. See Master Response 44 for further explanation regarding decision tree monitoring and operational modifications. |
| 1560 | 11 | <p>J. REAL TIME ADJUSTMENTS (Section 10.2.2, Pages 27-29)</p> <p>One of the goals of the BDCP and the Implementing Agreement should be to reduce unanticipated interruptions and restrictions on pumping. Real time operation decisions should be water supply neutral and should not compromise the discretion of the Project Operators to maximize water supply benefits provided the requirements of BDCP are being met. The Implementing Agreement should provide certainty as to the process through which real time operations decisions will be made, and the SWP/CVP Contractors should be part of the decision process.</p> <p>Given the SWP/CVP Contractors' vested interest and expertise in water operations, one SWP Contractor and one CVP Contractor should serve as voting (not non-voting) members on the Real Time Operations Team. If one SWP Contractor and one CVP Contractor are not added as voting members of the Real Time Operations Team, the voting members of the Real Time Operations Teams should not be permitted to expand the membership of the team without the consent of the SWP/CVP Contractors.</p> | See Response to Comment 1560-1. See also Master Response 44, Decision Tree Approach. |
| 1560 | 12 | <p>K. RESERVE SYSTEM (Section 11.4, Page 42):</p> <p>In its comments on the BDCP, Irvine Ranch Water District noted that the maintenance requirements for the tunnels have not yet been finalized, and recommended that the costs be examined more thoroughly in the final BDCP and EIR/EIS. The District also recommended that before implementation of the BDCP is begun, the cost and cost</p> | See Response to Comment 1560-1. Master Response 5 contains detailed information regarding costs, funding mechanisms as well as the current status of the BDCP. Please note as mentioned in response to comment 1560-1 that the new preferred alternative is Alternative 4A. |

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| | | <p>allocation for the Preferred Alternative (Alt. No. 4) should be fully understood and agreed to by the various parties responsible for funding the BDCP. Additionally, IRWD has held the position that the final parameters of the conveyance system must be reflected in contractual agreements with high quality supply delivery assurances to provide certainty that investments in the conveyance facilities reap adequate returns for investors.</p> <p>The cost and cost allocations for funding the obligations of the various parties under the Implementing Agreement should also be understood before the Implementing Agreement is finalized. With regards to the funding of the reserve system, the Draft IA should be amended to state the amount required for the non-wasting endowment discussed in Section 11.4.1. Section 11.4.1 should also be amended to clearly state each party's obligation to fund the endowment.</p> | |
| 1560 | 13 | <p>L. CHANGE CIRCUMSTANCES (Section 12.0, Page 44):</p> <p>As identified in Section 12.0 of the Draft Implementing Agreement, "Ecological conditions in the Delta are likely to change as the result of future events and circumstances that may occur during the course of the implementation of the BDCP." Like other sections of the Draft IA, Section 12.0 should include a "no surprises" statement guaranteeing the Permittees that the Fish and Wildlife Agencies will not require of the permit holder any additional land, water, or financial compensation nor impose additional restrictions on the use of land, water or other natural resource without their consent provided the Implementation Office acts are required in Section 12.1.</p> <p>Also there is not a clear division of responsibility between the Authorized Entities and the state and federal governments for implementing responses to Changed Circumstances. This should be addressed in the final Implementing Agreement.</p> | See Response to Comment 1560-1. Please refer to Master Response 5 for more information regarding the governance structure of the implementing agreement. |
| 1560 | 14 | <p>M. INADEQUATE FUNDING (Section 13.2, Page 47)</p> <p>In recognition of the fact that the BDCP is a comprehensive plan that provides significant benefits to the public, the Draft Implementing Agreement appropriately provides that the State of California and the United States will be responsible for funding portions of the BDCP that are not otherwise funded by the Authorized Entities. Additionally, the Draft IA appropriately includes provisions that provide the Permittees with assurances and protections. These assurances and protection are unfortunately minimized by Section 13.2.</p> <p>Section 13.2 states that "In the event of a shortfall in State or federal funding, a Fish and Wildlife Agency(ies) shall not suspend or revoke the State and/or Federal Permits or invalidate Reclamation's take statement if the shortfall in funding is determined to be likely to have no more than a minimal effect on the capacity of the Plan to advance the biological goals and objectives." This language allows the Permittees' permits to be revoked as a result of something outside of their control. Consistent with the "no surprises" assurances provided to the Permittees, the Implementing Agreement should provide that as long as the Permittees are fully meeting their obligations, the permits may not be revoked or suspended due to a lack of federal or state funding. At a minimum, the term "minimal effect" needs to be defined in order to protect the Permittees from backstopping the obligations of the state and federal government.</p> | See Response to Comment 1560-1. Master Response 5 contains detailed information regarding costs, funding mechanisms as well as the current status of the BDCP. |

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| 1560 | 15 | The funding obligations of State of California and the United States are lumped together. The funding split between the State of California and the United States needs to be identified and included in the final Implementing Agreement. | Master Response 5 contains detailed information regarding costs, funding mechanisms as well as the current status of the BDCP. See also Response to Comment 1560-1. |
| 1560 | 16 | Section 13.2 references the requirement for rough proportionality in funding to ensure there will be no mitigation debt in the event of inadequate funding. While the Draft Implementing Agreement contains a definition of rough proportionality, it includes no standard for when a failure of rough proportionality would trigger a partial suspension or revocation of the Permits. This should be addressed. Consistent with the comments above, a failure to maintain rough proportionality due to a shortfall in state or federal funding should not be a basis for partial suspension or revocation of the permits provided the Permittees are fully meeting their obligations. | Master Response 5 contains detailed information regarding costs, funding mechanisms as well as the current status of the BDCP. See also Response to Comment 1560-1. |
| 1560 | 17 | The Implementing Agreement should fairly and clearly detail the roles and responsibilities of each party to the BDCP and establish the steps taken if a party fails to meet its obligations under the plan. The assurances contained in the Implementing Agreement are important to the BDCP's success and the balancing of the coequal goals. The final Implementing Agreement should include the necessary regulatory assurances to sufficiently protect the significant investment being made to improve habitat and water supply reliability. | See also Response to Comment 1560-1. The proposed governance structure for the implementing agreement is outlined and explained in Master Response 5. |
| 1560 | 18 | Irvine Ranch Water District encourages the state and federal agencies to quickly finalize the BDCP and Implementing Agreement with the additions discussed above. Once the Implementing Agreement is finalized, the BDCP and Preferred Alternative (Alt. No. 4) should be expeditiously implemented to limit further uncertainty in the Delta's ecosystem and water supply reliability. California can no longer afford to delay its investment in the Delta. | See also Response to Comment 1560-1. The goals expressed by the commenter are aligned with those outlined in the new preferred alternative, Alternative 4A, which has been developed through public and agency input. |
| 1561 | 1 | <p>Predetermination of Action to Construct and Operate an Isolated Conveyance Facility.</p> <p>The Decision to Proceed with an Isolated Conveyance, i.e., Peripheral Canal/Tunnels, as Part of the Plan Has Been Made in Advance of the Analysis and Preparation of the Draft EIR/EIS and Destroyed the Impartiality for a Good Faith Effort at Full Disclosure and Analysis of Impacts, Alternatives and Mitigation.</p> <p>NEPA requires full disclosure of the potential effects of major actions proposed by federal agencies and accompanying alternatives, impacts and possible mitigation. NEPA also requires that environmental concerns and impacts be considered during planning and decision making so that steps may be more easily taken to correct or mitigate the impacts of an action. Compliance with NEPA should result in more informed decisions and the opportunity to avoid or mitigate for potential environmental effects before an action is implemented. The NEPA process is intended to identify and evaluate alternatives in an impartial manner.</p> | As of the writing of this Final EIR/EIS, no decisions related to project approval have been made for any of the action alternatives. Please see Master Response 4 regarding alternatives development which also addresses how the lead agencies have not made any predeterminations on the proposed project. |
| 1561 | 2 | CEQA requires adequacy, completeness and a good faith effort at full disclosure. The EIR is to inform the decision makers and the public of the environmental impact of proposed actions. (See CEQA Guidelines sections 15002 and 15003.) The purposes include identifying ways to avoid or significantly reduce environmental damage and preventing significant, avoidable damage to the environment by requiring changes in projects | 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 |

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| | | <p>through the use of feasible alternatives or mitigation measures.</p> <p>The environmental review for BDCP has been orchestrated to justify the new Sacramento River intakes and the isolated conveyance facility. Such actions reflect bad faith and have resulted in inadequate disclosure and analysis of impacts, alternatives and mitigation.</p> | <p>other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions. Please see Master Response 4 regarding alternatives development.</p> |
| 1561 | 3 | <p>Participation in the BDCP Steering Committee was conditioned on agreement to The Bay Delta Conservation Plan Points of Agreement for Continuing into the Planning Process dated November 16, 2007, which includes agreement to new points of diversion on the Sacramento River and an isolated conveyance facility.</p> <p>The agreement provides:</p> <p>"2.3 Conveyance Facilities</p> <p>The Steering Committee agrees that the most promising approach for achieving the BDCP conservation and water supply goals involves a conveyance system with new points of diversion, the ultimate acceptability of which will turn on important design, operational and institutional arrangements that the Steering Committee will develop and evaluate through the planning process. The main new physical feature of this conveyance system includes the construction and operation of a new point (or points) of diversion in the north Delta on the Sacramento River and an isolated conveyance facility around the Delta. Modifications to existing south Delta facilities to reduce entrainment and otherwise improve the State Water Project's (SWP) and Central Valley Project's (CVP) ability to convey water through the Delta while contributing to near and long-term conservation and water supply goals will also be evaluated. This approach may provide enhanced operational flexibility and greater opportunities for habitat improvements and fishery protection. During the BDCP process, the Steering Committee will evaluate the ability of a full range of design and operational scenarios to achieve BDCP conservation and planning objectives over the near and long term, from full reliance on the new facilities to use of the new facilities in conjunction with existing facilities." (Emphasis added.)</p> <p>Excluded from such planning process agreement is design and operation of the SWP and CVP without an isolated conveyance facility and/or new intake facilities.</p> <p>Exhibit 1 attached hereto is a copy of the January 27, 2009, letter from Karen Scarborough, Undersecretary of the State of California Resources Agency and Chair of the BDCP Steering Committee to Dante John Nomellini, Manager and Co-Counsel of the Central Delta Water Agency requiring such consent. The letter provides:</p> <p>"As you are also aware, consent to the 'Points of Agreement' and other prior decisions of the Steering Committee is requisite for a seat on the Steering Committee."</p> <p>Exhibit 2 is a copy of The Bay Delta Conservation Plan: Points of Agreement for Continuing Into the Planning Process (November 16, 2007).</p> <p>Exhibit 3 is a copy of the August 26, 2008, letter from Dean Ruiz, attorney for the Central Delta Water Agency, to Karen Scarborough requesting membership on the BDCP Steering Committee.</p> | <p>This comment is similar to the one made in Comment 1561-1. Please see the response to Comment 1561-1, which addresses alternatives development as well as how the lead agencies have not made any predeterminations on the proposed project.</p> |

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| | | <p>Exhibit 4 is a copy of the November 13, 2008, letter from Dante John Nomellini, Manager and Co-Counsel of the Central Delta Water Agency, to Karen Scarborough, et al. stating willingness to execute the October 6, 2006, Planning Agreement but disagreeing with the provision in the November 16, 2007 "Points of Agreement."</p> <p>The Department of Water Resources as lead agency for CEQA and the United States Department of Interior's Bureau of Reclamation as a co-lead agency under NEPA are both signatories to the March 2009 Memorandum of Agreement Regarding Collaboration On the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program in Connection With the Development of the Bay Delta Conservation Plan. The Memorandum includes the above referenced November 16, 2007, Points of Agreement to construct and operate an isolated conveyance facility as Exhibit 2 thereto. Said Memorandum is attached hereto as Exhibit 5. DWR and the USBR are both signatories to the December 15, 2011, First Amendment To The Memorandum of Agreement Regarding Collaboration On the Planning, Preliminary Design and Environmental Compliance For The Delta Habitat Conservation and Conveyance Program In Connection With the Development of the Bay Delta Conservation Plan. Said First Amendment confirms the ongoing commitment to the BDCP and DHCCP including the March 2009 MOA which is Exhibit 5 hereto and further references in paragraph J. the November 2007 "Points of Agreement." The First Amendment dated December 15, 2011, is attached hereto as Exhibit 6.</p> <p>The Draft EIS/EIR is written in a manner advocating the Conservation Strategy of the BDCP plan which is to construct and operate an isolated conveyance as a stand alone conveyance or as part of dual conveyance and is evidence that the decision is predetermined. The lack of objective and impartial presentation and analysis is apparent.</p> | |
| 1561 | 4 | <p>The Executive Summary for the Bay Delta Conservation Plan at page 10 sets forth the Conservation Strategy for "Water Flow and Conveyance" as follows:</p> <p>"Water Flow and Conveyance</p> <p>Water flow and conveyance conservation measures provide for the development and operation of new water conveyance infrastructure and the establishment of operational parameters associated with existing and new facilities. New north Delta intake facilities along the Sacramento River will divert water through state of the art positive barrier fish screens into an isolated tunnel/pipeline to the south Delta. In conjunction with the existing south Delta facilities (referred to as dual operations), this improved operational flexibility will improve conditions for covered fish species and restore water supply reliability. Water diversion rates and bypass flows in the Sacramento River at the north Delta diversions will be informed by seasonal movement patterns of covered fish species. The conservation measures summarized in the following sections are discussed in detail in Chapter 3, Conservation Strategy." (Emphasis added.)</p> <p>The Executive Summary for the BDCP Draft EIR/EIS (November 2013) at page ES-1, paragraph 3 provides:</p> <p>".The BDCP is a comprehensive conservation strategy for the Sacramento-San Joaquin Delta (Delta) to advance the planning goal of restoring ecological functions of the Delta and improving water supply reliability in the state of California. The conservation strategy</p> | <p>The commenter references several sections of the 2013 public draft BDCP but claims that the analysis in the EIR/EIS is pre-decisional and that alternatives were not developed properly. The BDCP is a habitat conservation plan (HCP) and natural community conservation plan (NCCP). Both documents are prepared by applicants as proposals to the state and federal wildlife agencies to receive permits for the incidental take of state and federally listed species. To receive these permits the HCP and NCCP must describe all activities to be covered, and describe mitigation and conservation to offset the impacts of those covered activities. The HCP and NCCP must also present an analysis of the impacts of the covered activities on each of the covered species. The nature of the requirements of these documents is such that a single project or program must be proposed and analyzed. The role of the EIR/EIS is to evaluate the environmental effects of implementing the HCP and NCCP, along with a set of reasonable alternatives. Therefore, the contents and tone of the 2013 BDCP are appropriate given their purpose. Please note that the proposed project, Alternative 4A, no longer includes an HCP or NCCP.</p> <p>This comment is similar to the one made in Comment 1561-1. Please see the response to Comment 1561-1, which addresses alternatives development as well as how the lead agencies have not made any predeterminations on the proposed project.</p> |

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| | | <p>is designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. The BDCP reflects the outcome of a multiyear collaboration between DWR, Reclamation, state and federal fish and wildlife agencies, state and federal water contractors, nongovernmental organizations, agricultural interests, and the general public. The BDCP sets out a comprehensive conservation strategy for the Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework through the following.</p> <p>-New and/or modified state water conveyance facilities and operation of the SWP and the CVP in the Delta." (Emphasis added.)</p> <p>At page ES-2, it is provided:</p> <p>"The conservation strategy is based on the best available science and was built upon the following broad conservation goals." (Emphasis added.)</p> <p>These statements issued in advance of the completion of the EIR/EIS process reflect the predetermination and intended lack of objectivity in the preparation of the environmental documents and analysis. There appears to be no pretense of good faith objectivity and full disclosure.</p> | |
| 1561 | 5 | <p>The presentation of the isolated conveyance facility as Conservation Measure (CM 1) is itself conclusive evidence of the lack of good faith effort at full disclosure. Two forty foot (40ft) diameter tunnels 35 miles long which have the capacity to convey 9,000 to 15,000 cubic feet per second of water from the Sacramento River to the export pumps with no outlets for maintaining Delta water quality certainly do not constitute a conservation measure in terms of protection of the natural and agricultural resources of the Delta. During much of the time the capacity of the tunnels to direct water will exceed the flow available in the Sacramento River at the intake location. The construction and operation of the isolated conveyance facility with intakes on the Sacramento River is in fact a massive water export project and the Conservation Measures 2 through 22 are really the proposed mitigation measures. The characterization of the isolated conveyance facility - two forty foot diameter tunnels planned to divert 9000 cubic feet per second from the Sacramento River as a conservation measure is more than an act lacking good faith. It is an unlawful attempt to deceive the public by public agencies with responsibilities to protect the public trust.</p> <p>Top Public official actions have gone far beyond simple preference of a particular project and have resulted in the lack of impartiality of the public agencies under their direction which is necessary to a good faith full disclosure in the DEIS/DEIR.</p> | <p>Conservation measure 1 (CM1) as presented in the Draft BDCP and Draft EIR/EIS would provide for increased flexibility of diversion facilities in the Delta that would reduce effects of the current south Delta diversion facilities on listed fish species. The conveyance facilities would be operated to restore more natural Delta flow and reduce reverse flows in south Delta Channels. The Draft EIR/EIS and the RDEIR/SDEIS combined have disclosed the potential effects of 18 action alternatives including those of the California WaterFix (Alternative 4A), which is now the preferred CEQA and NEPA alternative.</p> <p>This comment is similar to the one made in Comment 1561-1. Please see the response to Comment 1561-1, which addresses alternatives development as well as how the lead agencies have not made any predeterminations on the proposed project.</p> <p>Please also see Master Response 13 (Public Trust Doctrine) which addresses how the project is in compliance with the public trust doctrine.</p> |
| 1561 | 6 | <p>Jerry Brown, Governor of the State of California has been emphatic in his advocacy of the BDCP tunnels. See Exhibit 7 [ATT7:] which is an Article wherein he is quoted as saying "I just want to get sh*t done,". "Sh*t" appears to be the BDCP tunnels which are the alternative to his previously emphatically supported peripheral canal, but with no outlets to maintain Delta water quality. Those within the Governor's Department of Water Resources and Department of Fish and Wildlife (agencies responsible for good faith full disclosure in the BDCP EIR/EIS) would be fools to misread the direction from the top. They have not misread the direction.</p> | <p>Please see Master Response 4 which addresses alternatives development as well as how the lead agencies have not made any predeterminations on the proposed project. . While advancing a proposed project is the very heart of any EIR/EIS, the lead agencies are still required to examine all the alternatives before selecting one. Eighteen different action alternatives are being studied at the same level of detail and are being considered. Additionally, a full discussion of the No Action Alternative is also included in the document and the lead agencies may still choose to adopt the No Action Alternative if they feel like none of the action alternatives is appropriate.</p> <p>Additionally, permitting from various agencies in accordance with multiple laws of whichever alternative is</p> |

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| | | <p>Secretary of Interior Ken Salazar, the head of the U.S. Bureau of Reclamation and U.S. Fish & Wildlife Service has also signaled his emphatic support for the BDCP Tunnels in remarks to the Commonwealth Club, San Francisco, CA, September 19, 2011, Exhibit 8 [ATT8:]. After referencing debate raging in Washington, D.C. relating to water supplies we depend on in the west. He explains:</p> <p>"It's a battle between pragmatism and ideology. Collaboration versus cynicism."</p> <p>"In California's Bay Delta, a plan to modernize and secure the State's aging and inadequate water system is always the target of pot shots. Yet the bottom line is the health of the Delta is inextricably linked to the security of safe and reliable water supplies."</p> <p>Mr. Salazar goes on to provide:</p> <p>"That solution is the Bay Delta Conservation Plan.</p> <p>The Bay Delta Conservation Plan is the most important - and most complex - long-term water and habitat management plan ever undertaken.</p> <p>The BDCP provides a comprehensive approach that includes new habitat for endangered fish species, coordinated measures to attack toxics that are fouling delta waters, and improvements to the state's water infrastructure.</p> <p>Rather than simply pumping water from north to south through the Delta - which places immense strain on the system and is unreliable - a new conveyance system would reduce direct conflicts between water supply and fisheries, as the Delta Vision Blue Ribbon Task Force and many independent scientists have recommended.</p> <p>This type of a comprehensive approach is long overdue. We simply must find a way to put California on a path to restore the delta and protect in-Delta interests - while also securing a more reliable water supply for its future. These are the 'co-equal goals' required by the landmark law that the California legislature passed in 2009.</p> <p>That's why, for the past two and a half years, my Department has committed a vast amount of energy to advancing the BDCP."</p> <p>The reference to "a new conveyance system" rather than "simply pumping water from north to south through the Delta" is to the BDCP common strategy for Water and Conveyance which is the "isolated tunnel/pipeline to the south Delta". Mr. Salazar's characterization of criticism as "pot shots" does not encourage those within his departments to make a good faith disclosure of adverse impacts of the project which he apparently favors.</p> <p>It would appear that those public officials who will control the decisions have moved well beyond support to a predetermination to move forward with the isolated conveyance in advance of completion of the EIR/EIS process.</p> <p>Further evidence of the predetermination of proceeding with the isolated tunnel/pipeline conveyance prior to completion of the EIR/EIS is the Department of Water Resources establishment of an organization within the Department called the Delta Conveyance</p> | <p>selected is still necessary prior to being able to move forward with constructing a project.</p> <p>For additional information regarding permitting, please see Master Response 45.</p> |

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| | | <p>Facility Design and Construction Enterprise to support the design and construction of the proposed Delta Conveyance Facilities. See Exhibit 9 [ATT9:]. In a presentation to the Metropolitan Water District of Southern California, Special Committee on the Bay Delta Mark Cowin, Director of the Department of Water Resources was quoted as saying:</p> <p>""So that's what I wanted to say about the DCE,' he said. 'The memo that I put out to all staff as Randall indicated, really is just our first steps as an organization to prepare ourselves for implementation of this project so we're taking our existing resources and starting to move them into an organization that can engage both with the DCE and ultimately with the implementation office for BDCP as well.'" (Emphasis added.)</p> <p>The candid admission by Jerry Meral, then Deputy Secretary of Resources who was quoted to say:</p> <p>"BDCP is not about, and never has been about saving the Delta. The Delta cannot be saved."</p> <p>is further evidence that there has been a predetermination as to the construction of the isolated conveyance facility. See Exhibit 10. [ATT10: San Francisco Chronicle article, "Jerry Meral: Tunnels won't save Delta"]</p> | |
| 1561 | 7 | <p>The isolated conveyance, Conservation Measure 1, is the only measure for which the BDCP EIR/EIS provides project level review and it is really a water export facility and not at all a conservation measure. The lack of inclusion of Delta levee improvements as part of the Conservation Measure 1 project to facilitate export operation when the Sacramento River intakes cannot be safely operated lends more weight to the evidence that going forward with the isolated conveyance has been predetermined. The State administration determination is contrary to State law which requires that the unique cultural, recreational, natural resource and agricultural values of the Delta be protected and enhanced and that water shall not be diverted from the Delta for use elsewhere unless adequate supplies for the Delta are first provided.</p> <p>The actions of Federal Officials and Agencies reflect an intentional violation and circumvention of 40 CFR Section 1506.1(a) which precludes actions which would "Limit the choice of reasonable alternatives" until an agency issues a record of decision as provided in Section 1505.2. Such actions clearly run contrary to a good faith effort to rigorously explore and objectively evaluate all reasonable alternatives as required by 40 CFR Section 1502.14.</p> | <p>Conservation measure 1 (CM1) as presented in the Draft BDCP and Draft EIR/EIS would provide for increased flexibility of diversion facilities in the Delta that would reduce effects of the current south Delta diversion facilities on listed fish species. The conveyance facilities would be operated to restore more natural Delta flow and reduce reverse flows in south Delta Channels.</p> <p>The Draft EIR/EIS and the RDEIR/SDEIS combined have disclosed the potential effects of 18 action alternatives including those of the California WaterFix (Alternative 4A), which is now the preferred CEQA and NEPA alternative.</p> <p>For a discussion regarding concern that CM1 is the only conservation measure to receive project-level review in the 2013 Draft EIR/EIS, please see Master Response 2 (Project Level v. Program Level).</p> <p>Please also refer to Master Response 4, which addresses alternatives development and provides detail about the range of alternatives evaluated as well as how the lead agencies have not made any predeterminations on the proposed project.</p> |
| 1561 | 8 | <p>NEPA policy and procedural requirements to assure objectivity in the preparation of the EIS have been, and are being, circumvented.</p> <p>The BDCP Draft EIR/EIS Purpose Statement is a confusing mix of State Water Project (SWP), federal Central Valley Project (CVP), State Water Contractor and federal Water Contractor purposes and needs.</p> <p>The SWP and State Water Contractors obviously want to construct the isolated conveyance facility and operate the SWP to maximize the export of water from the Delta. They seek a 50-year permit without surprises to take endangered species.</p> | <p>Please note for the purpose of this comment and subsequent comments that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. The RDEIR/SDEIS Executive Summary, ES.1, identifies and updates from the 2013 Draft EIR/EIS the lead and cooperating agencies that will use the EIR/EIS as part of their decision-making process. Reclamation will act as the sole federal Lead Agency of the proposed project (under NEPA) while DWR will continue to act as the state Lead Agency (under CEQA). DWR is serving as the CEQA lead agency and Reclamation is serving as the NEPA lead agency because these agencies have the primary responsibility for decision-making related to the SWP and CVP and approval of the proposed project.</p> <p>The regulatory agencies – USFWS, NMFS, CDFW, USACE, and the State Water Board – participated to provide technical input and guidance in support of planning efforts for the proposed project. USFWS and NMFS will</p> |

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| | | <p>The CVP (U.S. Bureau of Reclamation [USBR]) although clearly in favor of construction of the isolated conveyance has not forthrightly sought authority to join in construction, but obviously plans to convey CVP water through such facility and seeks to protect the "ability of the SWP and CVP to deliver up to full contract amounts, . . ."</p> <p>The SWP contractors and CVP contractors who are to receive the water exported from the Delta obviously are isolated conveyance and full delivery proponents.</p> <p>The roles of regulating agencies and applicants, lead agencies and cooperating agencies has been mixed in a manner which circumvents the procedural mechanisms to assure NEPA required objectivity.</p> <p>The SWP and SWP contractors seeking take permits from the U.S. Fish & Wildlife Services (USFWS) and National Marine Fisheries Service should be viewed as applicants and the Services as co-lead agencies. In such case, the EIS should have been prepared directly by the Services or by a contractor selected by them or where appropriate under 40 CFR section 1501.6(b), a cooperating agency which has a similar interest. 40 CFR section 1506.5(c) in part provides:</p> <p>"It is the intent of these regulations that the contractor be chosen solely by the lead agency, or by the lead agency in cooperation with cooperating agencies, or where appropriate by a cooperating agency to avoid any conflict of interest."</p> <p>Allowing DWR, the USBR and their respective contractors to run the show is not appropriate.</p> | <p>act as NEPA cooperating agencies.</p> <p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS.</p> |
| 1561 | 9 | <p>Although 40 Code Federal Regulations (CFR) section 1506.2 directs cooperation to the fullest extent possible to reduce duplication between NEPA and state and local requirements, it does not suggest that compliance with requirements to avoid conflict of interest and assure objectivity can be avoided. Joint selection of common consultants in compliance with NEPA requirements and subsequent sole direction of the common consultants by U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as to NEPA compliance would avoided duplication and could have helped avoid the conflict of interest deterioration of objectivity. Such has not been the case with the BDCP. The U.S. Bureau of Reclamation (USBR) is not a regulatory or permitting agency for BDCP in the same sense as the USFWS and NMFS. It has its own responsibilities for compliance with federal Endangered Species Act (ESA) which cannot be insulated with a 50 year take permit. It's consultations with USFWS and NMFS require that it comply with NEPA, but its role in protecting endangered species is conflicted with its role in serving its water contractors and in coordinating the CVP operations with those of the SWP. The USBR is not an adequate representative for the interests and NEPA responsibilities of the USFWS and NMFS and should not be a co-lead for BDCP purposes. Attached hereto as Exhibit 11 [see ATT11:] is a copy of the First Amendment to the Memorandum of Agreement Regarding Collaboration on the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program in Connection with the Development of the Bay Delta Conservation Plan dated August 31, 2011. This copy contains signatures by the DWR and USBR. Whether the State and Federal Contractors signed is not known. This First Amendment can be contrasted to another First Amendment (which may be the Second Amendment) dated December 11, 2011 and is attached as Exhibit 6 [see ATT6:]. The USFWS and NMFS are not parties to</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.</p> <p>The process of developing the EIR/EIS included consistent coordination with the co-lead federal agencies in order to incorporate their input into the environmental analysis of the proposed project. This process did not inhibit the evaluation by NMFS or USFWS on whether or not to issue the Section 10 incidental take permits.</p> <p>The BDCP EIR/EIS Executive Summary, ES.1, identifies the lead, cooperating, responsible, and trustee agencies that will use the EIR/EIS as part of their decision-making process. In addition to the project proponents the proposed project is being prepared with the participation of Reclamation, USFWS, NMFS, USACE, the California Natural Resources Agency, CDFW, the State Water Board, and various stakeholders. The regulatory agencies – USFWS, NMFS, CDFW, USACE, and the State Water Board – are participating to provide technical input and guidance in support of planning efforts. For the RDEIR/SDEIS, DWR is serving as the CEQA lead agency and Reclamation is serving as the NEPA lead agency because these agencies have the</p> |

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| | | <p>either First Amendment. Both First Amendments provide essentially the same language as to contracting, directing and communicating with the consultants regarding the BDCP EIS/EIR.</p> <p>II.E. of Exhibit 6 [ATT6:] provides:</p> <p>"E. DWR is taking the lead role in preparing and, after consultation with the Parties, shall direct the consultants regarding the content of the BDCP, including those elements of the BDCP intended to be incorporated in the EIS/EIR. DWR has also contracted with the consultants preparing the EIS/EIR and shall continue to administer the contract. DWR shall solicit, in a timely manner, from the Department of Fish and Game ('DFG'), the Public Water Agencies, and the NEPA Co-lead Agencies, comments on the draft work products in support of the completion of tasks, pursuant to the schedules in Exhibit 1 and 1A. As set forth in Paragraph B above, Reclamation shall be responsible for coordinating with the NEPA Co-lead Agencies and coordinating with DWR on the NEPA Co-lead Agencies' comments that DWR shall submit to the Consultants in accordance with the schedules in Exhibit 1 and 1A. In the event agency comments are not received consistent with the schedules in Exhibit 1 and 1A. DWR may proceed with preparation of the BDCP and DWR, and Reclamation may proceed with the preparation of the EIS/EIR. DWR shall direct the Program Manager on preparation of the BDCP and EIS/EIR as necessary to maintain the schedule or consider necessary revisions as described in subsection II.C. The DWR Director shall concurrently advise the Parties of the direction provided to the Program Manager. Nothing in this section or elsewhere in this First Amended MOA (Memorandum of Agreement) modifies the Federal responsibilities for the content of the draft and final EIS and preparation of the ROD (Record of Decision)."</p> <p>II.F. of Exhibit 6 [ATT6:] and Exhibit 11 [ATT11:] in pertinent part provides:</p> <p>"F. DWR has retained a consultant with extensive project management experience to be the BDCP and DHCCP (Delta Habitat Conservation and Conveyance Program) Program Manager. The Program Manager shall report to and be directed by the Director of DWR. The Director of DWR shall implement the responsibilities of DWR as set forth in Subsection II.E. above. The Director of DWR may fulfill this responsibility through the Program Manager, who is delegated to carry out the day-to-day management activities of the BDCP and to closely coordinate with Reclamation regarding preparation of the EIS/EIR...."</p> <p>II.Q. of Exhibit 6 [ATT6:] (12-15-11) provides:</p> <p>"Q. The Parties may retain consulting services as necessary to complete the BDCP and DHCCP Planning Phase, including the BDCP and EIS/EIR. No consultants will be retained for BDCP work unless they are approved by DWR. Before retaining consultants for EIS/EIR work DWR shall, in accordance with NEPA, its implementing regulations and the Lead Agency Agreement, consult with the NEPA Co-Lead Agencies. Consistent with Section 11.F, above, the Director of DWR shall manage the retained consultants to carry out the BDCP and EIS/EIR."</p> <p>II.Q. of Exhibit 11 [ATT11:] (8-31-11) provides:</p> <p>"Q. The Parties may retain consulting services as necessary to complete the BDCP-DHCCP</p> | <p>primary responsibility for decision making related to the SWP and CVP and approval of the proposed project.</p> <p>DWR operates and maintains the SWP and would continue to do so as part of the implementation of the proposed project related to the SWP. DWR's actions in the process will be to certify the EIR, adopt findings of fact, decide whether to approve the proposed project and its implementation, and carry out obligations. Reclamation operates the CVP in coordination with the SWP through the Coordinated Operation Agreement. Operation of new conveyance facilities and/or flow patterns under the proposed project would result in changes to existing CVP operations specific to the Delta that provide for diversion, storage, and conveyance of CVP water consistent with applicable law and contractual obligations. Reclamation's action in relation to the proposed project would be to adjust CVP operations specific to the Delta to accommodate new conveyance facility operations and/or flow requirements under the proposed project, in coordination with SWP operation.</p> |

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| | | <p>Planning Phase, including the BDCP and EIS/EIR. Consistent with Section II.F, above, the Director of DWR shall manage the retained consultants to carry out the BDCP and EIS/EIR."</p> <p>III.I. of Exhibit 6 [ATT6:] and Exhibit 11 [ATT11:] provides:</p> <p>"I. In the event DWR designates SFCWA as a consultant contract administrator, DWR shall continue collecting funds from the Public Water Agencies, including but not limited to those member agencies identified in Exhibit 2, pursuant to the BDCP-DHCCP Planning Phase funding agreements, and DWR shall distribute those funds to SFCWA to fund the consultants that are contracting directly with SFCWA (State and Federal Contractors Water Agency) for the completion of the BDCP-DHCCP Planning Phase."</p> <p>The USFWS and NMFS, the agencies with the most direct responsibility for protection of endangered species and the parties expected to approve the BDCP have been relegated to a backseat role. They do not hire or direct the consultants; their submission of comments must be through the USBR and thence through DWR to the consultants. If their comments are untimely DWR and Reclamation make the call. USFWS and NMFS cannot even hire consultants unless they are approved by DWR and DWR can even delegate administration of the consultant contracts to the water contractors.</p> | |
| 1561 | 10 | <p>The manipulation of the lead, co-lead and cooperating agencies and the delegation of responsibilities by the State and federal agencies has left the most conflicted parties in charge of the NEPA environmental process. Although the ultimate approval is left with the respective agencies, the thousands of pages of text and studies is virtually impossible to adequately review. The 132 page Executive Summary can be contrasted to the 15page normal summary referenced in 40 CFR section and the thousands of pages in the DEIS/EIR can be contrasted to the 150 to 300 pages referenced in 40 CFR section 1502.7. The impartiality and avoidance of conflicts whether financial or otherwise, of the consultants is critical to the objective analysis required by NEPA. Those who contract with the consultants and most important those who direct the consultants will have the greatest impact on objectivity. As related to BDCP the DWR and in turn the U.S. Bureau of Reclamation are essentially the agents of their respective contractors and should be viewed as applicants for the purpose of NEPA compliance. 40 CFR section 1506.5(c) specifies that a consulting firm involved in preparing an EIS must execute a disclosure statement setting forth any "financial or other interest in the outcome of the project." Whether this was done and by whom is of interest however, even with such disclosure, direction of the consultants will greatly dictate the bounds of objectivity.</p> <p>Objectivity to assure the need to "rigorously explore and objectively evaluate all reasonable alternatives" is made more critical by the revolving door of employees between federal and state agencies and export water contractors.</p> <p>For NEPA purposes, U.S. Fish and Wildlife Service and National Marine Fisheries Service should now engage independent consultants which they direct to review, revise and supplement the already prepared BDCP documents and issue their own draft EIS for public comment and final action. The cost for such effort should be paid in advance by those seeking the 50-year Endangered Species Act take permit.</p> | <p>As stated in the foregoing, BDCP is no longer the preferred alternative. Rather, 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>The Federal and State Lead Agencies have done their best to make the EIR/EIS for the BDCP as fair, objective, and complete as possible. Before the selection and approval of an alternative considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. The RDEIR/SDEIS, along with the BDCP Draft EIR/EIS, and this Final EIR/EIS are intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions. These other public agencies are referred to as responsible agencies and trustee agencies under CEQA (State CEQA Guidelines Sections 15381 and 15386) and cooperating agencies under NEPA (e.g., USACE and EPA).</p> <p>For more information please see the RDEIR/SDEIS Section 1 – Introduction, Subsection 1.1.5.</p> <p>Regarding the length and complexity of the document, please see Master Response 38. See also Master Response 4 regarding alternatives development.</p> <p>DWR and USBR have worked diligently with the EIR/EIS contractors to provide independent direction related to the EIR/EIS content that is adequate for the purposes of CEQA and NEPA, reflect the best available science and analytical tools and is objective.</p> |

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| 1561 | 11 | For CEQA purposes the state Department of Fish and Wildlife, although realistically not able to exercise any position independent of DWR, would have been the more appropriate State agency to direct the consultants in preparation of the EIR. At this juncture the Independent Science Board or some other independent body should be authorized and funded to review, revise and supplement the already prepared BDCP documents and issue a new CEQA draft for public comment and final action. The cost for such effort should be paid in advance by those seeking a take permit by way of the NCCPA. | DWR is the appropriate lead agency for CEQA purposes because the primary responsibility for the SWP and any improvements to the SWP is held by DWR. 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 trustee 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. See also Master Response 4 regarding alternatives development. |
| 1561 | 12 | The BDCP and the Draft EIS/EIR have been structured to restrain the use of water quality and flow to protect fish and to preclude the reduction in export of water from the Delta, both of which are essential parts of reasonable alternatives to be rigorously explored and objectively evaluated. | As modeled in the EIR/EIS, the alternatives present a range of exports and Delta outflows that could be accommodated under the existing SWP water right permit. Should the SWRCB decide as part of its Bay-Delta Water Quality Control Plan update or the change in point of diversion petition proceedings for the California WaterFix, DWR would comply with adopted changes in the current objectives. See Master Response 4 regarding alternatives development and Master Response 5 regarding the planning effort. See also Chapter 4, Approach to the Environmental Analysis in the Final EIR/EIS. |
| 1561 | 13 | The Project Objectives and Purpose Statement for CEQA (DEIR/EIS Chapter 2 Section 2.3) and the Project Need and Purpose Statement for NEPA (DEIR/EIS Chapter 2 Sections 2.4. and 2.5) have been crafted to avoid addressing the critical need to restrict exports by the SWP and CVP to water which is truly surplus to the present and future needs, including fish and wildlife needs in the Delta and other areas of origin. | 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 proposed project please see Master Response 3. See Master Response 4 regarding alternatives development and Master Response 5 regarding the planning effort. See also Chapter 4, Approach to the Environmental Analysis in the Final EIR/EIS. |
| 1561 | 14 | While paying lip service to the limitation that a project's purpose under CEQA cannot be artificially narrowed to limit objective consideration of reasonable alternatives the lead agencies have done just that. They rely on the proposition that "a reasonable definition of underlying purpose and need" could be used to avoid the study alternatives that cannot achieve that basic goal. Their definition of purpose and need is not reasonable. | This comment is an opinion that the EIR/EIS Purpose and Need Statement is too narrow and restricts consideration of alternatives in the EIR/EIS. The commenter is directed to Appendix 3A, which presents a screening analysis of the alternatives considered in the EIR/EIS. Please see also Master Response 3 for further discussion about the adequacy of the project purpose and need. The purpose and need statement has been crafted to balance the need for water supply reliability and Delta ecosystem improvement. Reclamation, as the federal lead agency, has described the purpose and need for the proposed action in a way that meets its statutory authority. See also Chapter 4, Approach to the Environmental Analysis in the Final EIR/EIS. |
| 1561 | 15 | The requirements for NEPA are different. The DEIS/EIR must meet the requirements of 40 CFR section 1502.14 which provides: "[Section] 1502.14 Alternatives including the proposed action. This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment ([Section] 1502.15) and the Environmental Consequences ([Section] 1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall: a. Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. | This comment restates the law rather than raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 Draft EIR/EIS. However, the Lead Agencies will make the final decisions regarding the selection of an alternative (and therefore, an operational scenario) for the purposes of CEQA and NEPA. USFWS and NMFS have authority under the federal Endangered Species Act to determine whether the Proposed Project meets the regulatory standard of ESA Section 7, and CDFW, a CEQA responsible agency, has authority to determine if the Proposed Project meets the regulatory standards of CESA. Please see Chapter 3 of the Final EIR/EIS for additional information on Proposed Project operations. The Executive Summary of the Final EIR/EIS has included comparison tables of all resource area impacts across all alternatives. Please see Master Responses 28 and 29 for more information regarding operational scenarios and compliance with ESA respectively. For more information regarding alternatives to the proposed project please see Master Response 4. See |

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| | | <p>b. Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.</p> <p>c. Include reasonable alternatives not within the jurisdiction of the lead agency.</p> <p>d. Include the alternative of no action.</p> <p>e. Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.</p> <p>f. Include appropriate mitigation measures not already included in the proposed action or alternatives."</p> <p>An alternative which requires that the SWP and CVP be operated in accordance with current law is a reasonable alternative which must be rigorously and objectively evaluated.</p> | also Chapter 4, Approach to the Environmental Analysis in the Final EIR/EIS. |
| 1561 | 16 | <p>The purpose statement for the BDCP and Draft EIS/EIR has changed a number of times in apparent response to the demands of applicant export water contractors. These contractors, who as permittees, are required to fund the objective and impartial review of the environmental impacts by the public regulatory agencies should not have been allowed to leverage changes in purpose so as to constrain the analysis towards their favored alternative.</p> <p>Of particular note is the addition of the following:</p> <p>"Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of State and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements." (Emphasis added.)</p> <p>The ability of the SWP and CVP to deliver "full contract amounts" never existed and thus could not be restored or protected. The words "up to" conceivably should cover a range from zero deliveries to a high of what can be supported with full compliance with State and federal law and hydrologic conditions.</p> <p>Although obviously not intended by those controlling the preparation of the EIS/EIR, a range of reasonable alternatives must be considered including substantially reduced and at times no exports from the Delta. The upper range is of course limited by law and hydrology.</p> <p>Export of water from the Delta is counterproductive to improving the ecosystem and the DEIS/EIR has failed to present the environmental impacts and alternatives in a manner providing a clear basis for choice among options by the decisionmaker and the public as required by 40 CFR section 1502.14. The proposition that removal of natural flows into and through the Bay-Delta Estuary will improve the ecosystem is unique, bold and unsupported.</p> | <p>The provision referenced in this comment from the Purpose and Need Statement included in the 2013 Draft EIR/EIS is consistent with the same statement included in the Purpose and Need Statement published in the February 2009 Notice of Intent. This provision is consistent with the initial BDCP planning goals, including improving and protecting water supplies (as included in the January 2008 Notice of Intent). The range of alternatives were developed to address the Draft EIS Purpose and Need statement and the similar Draft EIR Project Objectives, as described in Chapter 3, Descriptions of Alternatives. The range of alternatives included in the 2013 Draft EIR/EIS included 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). It is assumed that water users would need to implement separate methods to reduce water demands or provide alternative water supplies in drier years, such as those methods currently used during droughts. Conveyance facility operations would also balance the need to restore and protect ecosystem conditions, water supply of the SWP and CVP and water quality within a stable regulatory environment. (Please note that the proposed project, Alternative 4A, no longer includes an HCP or NCCP. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input. 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>For more information about the adequacy of the purpose and need, please see Master Response 3.</p> |
| 1561 | 17 | HYDROLOGY | The statement that adequate water supplies are not available to fully meet SWP and CVP water service contract upper limits every year is consistent with information presented in Chapter 5, Water Supply of the |

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| | | <p>The hydrology predating the construction of the CVP and SWP reflected that no surplus water would be available for export from the Sacramento-San Joaquin Watershed during a reoccurrence of the 1929-1934 drought.</p> <p>Attached hereto as Exhibit 12 is a copy of the hydrographs from page 116 of the Weber Foundation Studies titled "An Approach To A California Public Works Plan" submitted to the California Legislature on January 28, 1960. The highlights and margin notes are mine.</p> <p>The 1928/29-1933/34 six year drought period reflected on Exhibit 12 shows the average yearly runoff is 17.631 million acre feet with local requirements of 25.690 million acre feet. There is a shortage during the drought period within the Delta Watershed of 8.049 million acre feet per year without any exports. It is questionable whether the groundwater basins can be successfully mined to meet the shortage within the watershed let alone the export demands. A comparable review of the hydrograph for the North Coast area reflects that surplus water could have been developed without infringing on local requirements.</p> <p>The limited hydrology was clearly recognized in the planning for the SWP which was to develop projects on the rivers in the North Coast watersheds sufficient to import to the Delta about 5,000,000 acre feet of water seasonally for transfer to areas of deficiency. (See Exhibit 14 December 1960 Bulletin 76 page 13). Such areas of deficiency were expected to be both north and south of the Delta pumps. The projects in the North Coast watersheds were never constructed and the projects are woefully short of water.</p> | <p>2013 Draft EIR/EIS. Figures 5-30, 5-31, and 5-34 indicate that under Existing Conditions, full contract deliveries would occur less than 20 percent of the time for SWP South of Delta water contractors and CVP North of Delta and South of Delta agricultural water service contractors. Figures 5-32 and 5-33 indicate that under Existing Conditions, full contract deliveries would occur less than 40 percent of the time for CVP South of Delta municipal and industrial water service contractors.</p> |
| 1561 | 18 | <p>In addition to the lack of precipitation in the Delta watershed to meet local and export needs are the environmental needs. Water is needed for mitigation of project impacts and the affirmative obligations for salinity control and fish restoration.</p> <p>The original planning for the SWP and CVP appears to have underestimated the needs to protect fish both as to flow requirements and carryover storage required for temperature control. In 2009 after only two (2) dry years, the SWP and CVP violated the February outflow requirements claiming that meeting the outflow requirements would reduce storage below the point necessary to meet cold water requirements for salmon later in the year. Although the project operators lied and the real reason for the violation was the ongoing pumping of the unregulated flow to help fill San Luis Reservoir, the incident clearly shows the inability of the projects to provide surplus water for export in the 4th, 5th and 6th years of drought.</p> <p>In May of 2013 the SWP and CVP again claimed a need to preserve cold water in storage for fish. They requested and were allowed by the State Water Resources Control Board to reduce outflow so as to exceed the western and interior Delta agricultural water quality objectives to save such cold water in storage. They did not suggest and did not reduce export pumping which would have had the same effect as reducing outflow.</p> | <p>This comment is related to planning for the SWP and CVP to deliver cold water for fish protection and an opinion about operations decisions in 2009. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p> <p>Please also refer to Master Response 25 regarding upstream reservoirs, Master Response 28 regarding operational criteria, and Master Response 47 related to modeling drought conditions under the California WaterFix.</p> |
| 1561 | 19 | <p>Currently in what appears to be the 3rd year of drought, the State Water Resources Control Board is issuing curtailment notices to post 1914 water right holders in the areas of origin and reducing exports due to the lack of water.</p> <p>Six year droughts can be expected and even longer droughts are possible. The historic occurrence of multi-year droughts was examined in a DWR study of tree rings Exhibit 13 is</p> | <p>This comment is similar to the one made in Comment 1561-17. Please see the response to Comment 1561-17, which addresses the comment that adequate water supplies are not available to fully meet SWP and CVP water service contract upper limits every year.</p> <p>Please note the hydrologic modeling presented in the 2013 Draft EIR/EIS indicates that full water supplies are available for water users with water rights senior to the SWP and CVP, although water temperature criteria</p> |

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| | | <p>Table 3 from such study.</p> <p>The State Water Project Delivery Reliability Report 2013 shows a long-term (10 year period) average Table A delivery as 2,266,000 acre feet per year; a long-term average (1921-2003) as 2,400,000 acre feet per year; a single dry year (1977) as 453,000 acre feet and a 6-year drought (1987-1992) as 1,055,000 acre feet per year. These figures can be contrasted to the Maximum Possible SWP Table A Delivery of 4, 172,000 acre feet per year. See Exhibit 15 excerpts from SWP Delivery Reliability Report 2013.</p> | <p>downstream of SWP and CVP dams maybe violated.</p> |
| 1561 | 20 | <p>LAW</p> <p>The Delta Reform Act of 2009 includes provisions intended to provide additional protection for the Delta. Such provisions include Water Code [Section]85054 which provides:</p> <p>"[Section]85054. Coequal goals</p> <p>'Coequal goals' means the two goals of providing a more reliable water supply for California and protecting restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."</p> <p>Water Code [Section]85021 which provides:</p> <p>"[Section]85021. Reduction of reliance on Delta for future water supply needs</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."</p> <p>The Delta and other areas of origin both upstream and downstream are part of California. The BDCP and DEIS/EIR purposes are clearly directed only at the ability of the SWP and CVP to export water from the Delta. Restoration and protection of Delta water quality and flows including flushing flows are not mentioned as a part of a more reliable water supply for California. Non- degradation of water quality and the statutory obligations to provide enhancement of water quality and an adequate supply are also absent from the purposes.</p> | <p>Chapter 2, Project Objectives and Purpose and Need, of the Draft EIR/EIS discusses the need (Section 2.5.3) to address the complicated Delta water quality issues and the need to anticipate, prepare, and adapt to changes in Delta water quality in a manner that would address ecological needs and the needs to provide adequate and reliable water supplies. The Project Objective and Project Purpose address the need to meet regulatory and statutory obligations, including water quality requirements, while restoring and protecting SWP and CVP water supplies "with the requirements of the State and federal law and the terms and conditions of water delivery contracts and other existing applicable agreements."</p> <p>For further discussion of the adequacy of the purpose and need, please see Master Response 3.</p> |
| 1561 | 21 | <p>The embedded isolated conveyance will clearly render water supply less reliable in all areas downstream. The common pool for the interior Delta will be eliminated along with the common interest in: protecting the water quality. The isolated conveyance has no outlets and requirements to protect water quality in dry periods are always circumvented. For areas throughout the watershed, including those along the tributaries upstream of the Delta, curtailment of local water use, and water transfers to increase utilization of the highly expensive tunnels combined with the need for fish flows and high water consumption habitat to mitigate for the construction and operation of the tunnels</p> | <p>The project alternatives presented in the EIR/EIS are intended to provide a range of operations for the proposed water conveyance facilities. These facilities would be operated to protect ecosystem conditions, water supplies of the SWP and CVP, and water quality. Based on the analyses in Chapter 6, Surface Water and Chapter 8, Water Quality, no substantial effects on Delta water supply reliability is expected under the California WaterFix. For more information on operational criteria, please see Master Response 28.</p> |

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| | | will greatly add to unreliability. | |
| 1561 | 22 | <p>The BDCP ignores the need to reduce reliance on exports of water from the Delta. The hydrology of the Delta watershed is inadequate to support even the past level of exports. Development within the watersheds of origin and the need to recapture water from SWP and CVP exports will increase. There is evidence that more water will be needed to mitigate for the SWP and CVP damage to fish including meeting the Central Valley Project Improvement Act anadromous fish restoration requirements of 2 times the average natural production for the years 1967 through 1991. Climate change is also expected to adversely affect water supply. The increasing threat of terrorism, the continuing threat of natural calamities, including earthquakes and the growing need for electricity all gravitate towards less reliance on exports from the Delta and instead concentration on developing local self sufficiency. The deficit due to the failure to develop North Coast watersheds will not be overcome by efforts at self sufficiency, however, increased efforts in urban communities can increase the amount of water available for agriculture and the environment.</p> | <p>This comment is similar to the one made in Comment 1561-21. Please see the response to Comment 1561-21, which addresses the comment regarding a range of operations and Delta water supply reliability.</p> |
| 1561 | 23 | <p>The legislative intent to increase not diminish protection for the Delta and other areas of origin is made especially clear in the adoption of Water Code section 8503 I (a) which provides:</p> <p>"(a) This division does not diminish, impair, or otherwise affect in any manner whatsoever any area of origin, watershed of origin, county of origin, or any other water rights protections, including, but not limited to, rights to water appropriated prior to December 19, 1914, provided under the law. This division does not limit or otherwise affect the application of Article 1.7 (commencing with Section 1215) of Chapter 1 of Part 2 of Division 2, Sections 10505, 10505.5, 11128, 11460, 11461, 11462, and 11463, and Sections 12200 to 12220, inclusive." (Emphasis added.)</p> <p>Water Code Sections 11460 et seq. and 12200 et seq. are particularly specific in defining the limitation on the export of water from the Delta by the SWP and CVP. Water Code Section 11460 et seq. were added by Statutes 1943, c. 370, p. 1896 around the time of commencement of the CVP. Water Code Section 12200 et seq. was added by Statutes 1959, c. 1766, p. 1766 around the time of commencement of the State Water Project.</p> <p>The obligation of the projects to provide salinity control and an adequate water supply sufficient to maintain and expand agriculture, industry, urban, and recreational development in the Delta was made clear.</p> | <p>The action alternatives could only change the amount of water diverted under the existing SWP and CVP water rights, subject to existing and future related regulatory requirements, as described in Chapter 5, Water Supply. No changes would occur to water supply availability for water rights holders due to BDCP (see Section 5.3.1 of Chapter 5 of the EIR/EIS), including those water rights holders located in the Delta watershed which are considered under the Area of Origin protections in accordance with the SWRCB water rights requirements (see Master Response 26). The SWP and CVP modeling operations assumptions include compliance with water quality requirements, such as salinity requirements in SWRCB Decision 1641, to the fullest extent possible after meeting senior water rights and regulatory requirements and prior to providing SWP and CVP water supplies to water contractors, as described in Appendix 5A, Section B, CALSIM II and DSM2 Modeling Simulations and Assumptions.</p> <p>For further information regarding area of origin, please see Master Response 26.</p> |
| 1561 | 24 | <p>A summary of the promises made on behalf of the United States to those in the areas of origin is contained in the 84th Congress, 2D Session House Document No. 416, Part One Authorizing Documents 1956 at Pages 797-799 as follows:</p> <p>"My Dear Mr. Engle: In response to your request to Mr. Carr, we have assembled excerpts from various statements by Bureau and Department officials relating to the subject of diversion of water from the Sacramento Valley to the San Joaquin Valley through the operation of the Central Valley Project.</p> <p>A factual review of available water supplies over a period of more than 40 years of record and the estimates of future water requirements made by State and Federal agencies</p> | <p>The comment restates a number of historical statements purportedly made related to area of origin and does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please also refer to Master Response 26, regarding area of origin protections.</p> |

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| | | <p>makes it clear that there is no reason for concern about the problem at this time.</p> <p>For your convenience, I have summarized policy statements that have been made by Bureau of Reclamation and Department of the Interior officials. These excerpts are in the following paragraphs:</p> <p>On February 20, 1942, in announcing the capacity for the Delta-Mendota Canal, Commissioner John C. Page said, as a part of his Washington D.C., press release: "The capacity of 4,600 cubic feet per second was approved, with the understanding that the quantity in excess of basic requirements mainly for replacement at Mendota Pool, will not be used to serve new lands in the San Joaquin Valley if the water is necessary for development in the Sacramento Valley below Shasta Dam and in the counties of origin of such waters."</p> <p>On July 18, 1944, Regional Director Charles E. Carey wrote a letter to Mr. Harry Barnes, chairman of a committee of the Irrigation Districts Association of California. In that letter, speaking on the Bureau's recognition and respect for State laws, he said:</p> <p>"They [Bureau officials] are proud of the historic fact that the reclamation program includes as one of its basic tenets that the irrigation development in the West by the Federal Government under the Federal reclamation laws is carried forward in conformity with State water laws."</p> <p>On February 17, 1945, a more direct answer was made to the question of diversion of water in a letter by Acting Regional Director R. C. Calland, of the Bureau, to the Joint Committee on Rivers and Flood Control of the California State Legislature. The committee had asked the question, "What is your policy in connection with the amount of water that can be diverted from one watershed to another in proposed diversions?" In stating the Bureau's policy, Mr. Calland quoted section 11460 of the State water code, which is sometimes referred to as the county of origin act, and then he said:</p> <p>"As viewed by the Bureau, it is the intent of the statute that no water shall be diverted from any watershed which is or will be needed for beneficial uses within that watershed. The Bureau of Reclamation, in its studies for water resources development in the Central Valley, consistently has given full recognition to the policy expressed in this statute by the legislature and the people. The Bureau has attempted to estimate in these studies, and will continue to do so in future studies, what the present and future needs of each watershed will be. The Bureau will not divert from any watershed any water which is needed to satisfy the existing or potential needs within that watershed. For example, no water will be diverted which will be needed for the full development of all of the irrigable lands within the watershed, nor would there be water needed for municipal and industrial purposes or future maintenance of fish and wildlife resources."</p> <p>On February 12, 1948, Acting Commissioner Wesley R. Nelson sent a letter to Representative Clarence F. Lea, in which he said:</p> <p>"You asked whether section 10505 of the California Water Code, also sometimes referred to as the county of origin law, would be applicable to the Department of the Interior, Bureau of Reclamation. The answer to this question is: No, except insofar as the Bureau of Reclamation has taken or may take assignments of applications which have been filed</p> | |

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| | | <p>for the appropriation of water under the California Statutes of 1927, chapter 286, in which assignments reservations have been made in favor of the county of origin.</p> <p>The policy of the Department of the Interior, Bureau of Reclamation, is evidenced in its proposed report on a Comprehensive Plan for Water Resources Development-Central Valley Basin, Calif., wherein the Department of the Interior takes the position that "In addition to respecting all existing water rights, the Bureau has complied with California's 'county of origin' legislation, which requires that water shall be reserved for the presently unirrigated lands of the areas in which the water originates, to the end that only surplus water will be exported elsewhere."</p> <p>On March 1, 1948, Regional Director Richard L. Boke wrote to Mr. A. L. Burkholder, secretary of the Live Oak Subordinate Grange No. 494, Live Oak, Calif., on the same subject, and said:</p> <p>"I can agree fully with the statement in your letter that it would be grossly unjust to 'take water from the watersheds of one region to supply another region until all present and all possible future needs of the first region have been fully determined and completely and adequately provided for.' That is established Bureau of Reclamation policy and, I believe, it is consistent with the water laws of the State of California under which we must operate."</p> <p>On May 17, 1948, Assistant Secretary of the Interior William E. Wame wrote a letter to Representative Lea on the same subject, in which he said:</p> <p>"The excess water made available by Shasta Reservoir would go first to such Sacramento Valley lands as now have no rights to water."</p> <p>Assistant Secretary Warne goes on to say, in the same letter:</p> <p>"As you know, the Sacramento Valley water rights are protected by: (1) Reclamation law which recognizes State water law and rights thereunder; (2) the State's counties of origin act, which is recognized by the Bureau in principle; and (3) the fact that Bureau filings on water are subject to State approval. I can assure you that the Bureau will determine the amounts of water required in the Sacramento Valley drainage basin to the best of its ability so that only surplus waters would be exported to the San Joaquin. We are proceeding toward a determination and settlement of Sacramento Valley waters which will fully protect the rights of present users; we are determining the water needs of the Sacramento Valley; and it will be the Bureau's policy to export from that valley only such waters as are in excess of its needs."</p> <p>On October 12, 1948, Secretary of the Interior Krug substantiated former statements of policy in a speech given at Oroville, Calif. Secretary Krug said, with respect to diversion of water:</p> <p>"Let me state, clearly and finally, the Interior Department is fully and completely committed to the policy that no water which is needed in the Sacramento Valley will be sent out of it."</p> <p>He added:</p> | |

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| | | "There is no intent on the part of the Bureau of Reclamation ever to divert from the Sacramento Valley a single acre-foot of water which might be used in the valley now or later." | |
| 1561 | 25 | <p>The California Water Resources Development Bond Act provides in Water Code Section 12931 that the Sacramento-San Joaquin Delta shall be deemed to be within the watershed of the Sacramento River.</p> <p>Exhibit 16 is a copy of the 1960 ballot argument in favor of the California Water Resources Development Bond Act which spawned the State Water Project (SWP). Of particular note are the following representations:</p> <p>"No area will be deprived of water to meet the needs of another nor will any area be asked to pay for water delivered to another."</p> <p>"Under this Act the water rights of Northern California will remain securely protected."</p> <p>"A much needed drainage system and water supply will be provided in the San Joaquin Valley."</p> <p>Water Code [Sections]12200 through 12205 are particularly specific as to the requirements to provide salinity control for the Delta and provide an "adequate water supply in the Delta sufficient to maintain and expand agriculture, industry, urban and recreational development."</p> | <p>This comment is similar to the one made in Comment 1561-23. Please see the response to Comment 1561-23, which discusses that the action alternatives could only change the amount of water diverted under the existing SWP and CVP water rights, subject to existing and future related regulatory requirements, as described in Chapter 5, Water Supply and directs the commenter to Master Response 26 for more information regarding area of origin protections.</p> <p>As described in the response to Comment 1561-17, information presented in Chapter 5, Water Supply, of the 2013 Draft EIR/EIS indicates that there is not adequate water supplies during long-dry and critical dry periods to fully meet water contract maximum amounts. Please see the response to Comment 1561-17 for more information.</p> |
| 1561 | 26 | <p>The December 1960 DWR Bulletin 76 (Exhibit 14) which includes a contemporaneous interpretation by DWR of Water code Section 12200 through 12205 provides at page 12:</p> <p>"In 1959 the State Legislature directed that water shall not be diverted from the Delta for use elsewhere unless adequate supplies for the Delta are first provided." (Emphasis added.)</p> <p>Similarly the DWR confirmed its interpretation of law in the contract between the State of California Department of Water Resources and the North Delta Water Agency For the Assurance of a Dependable Water Supply of Suitable Quality dated January 28, 1981, which provides:</p> <p>"(d) The construction and operation of the FCVP and SWP at times have changed and will further change the regimen of rivers tributary to the Sacramento-San Joaquin Delta (Delta) and the regimen of the Delta channels from unregulated flow to regulated flow. This regulation at times improves the quality of water in the Delta and at times diminishes the quality from that which would exist in the absence of the FCVP and SWP. The regulation at times also alters the elevation of water in some Delta channels."</p> <p>"(t) The general welfare, as well as the rights and requirements of the water users in the Delta, require that there be maintained in the Delta an adequate supply of good quality water for agricultural, municipal and industrial uses."</p> <p>"(g) The law of the State of California requires protection of the areas within which water originates and the watersheds in which water is developed. The Delta is such an area and within such a watershed. Part 4.5 of Division 6 of the California Water Code affords a first</p> | <p>This comment quotes text from various bulletins by DWR, the NDWA contracts, and the water code to emphasize that effects on Delta water users should not occur. No comments on the adequacy of the EIR/EIS or specific mention of effects of the proposed project or alternatives are mentioned. This Draft EIR/EIS and RDEIS/SDEIS do address potential effects of the alternatives on surface water in Chapter 6 and potential effects on water quality related to the action alternatives in Chapter 8. For Alternative 4A, the proposed project, there would be no effect on beneficial uses related to EC, chloride and Bromide, or other constituents that could affect water users in the Delta.</p> <p>Water Code 12200 also provides, "It is therefore, hereby declared that a general law cannot be made applicable to said Delta and that the enactment of this law is necessary for the protection, conservation, development, control and use of the waters of the Delta for public good." Water Code 12201 provides for adequate water supply in the Delta and export areas. For additional information regarding Water Supply analysis and the SWRCB management of Water Rights, please refer to Chapter 5 of the EIR/EIS and Master Response 32.</p> <p>With regards to the contract between DWR and NDWA, DWR will continue to meet its contract obligations. DWR releases previously stored water to comply with its contractual obligations and regulatory requirements for water quality and species protections.</p> |

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| | | <p>priority to provision of salinity control and maintenance of an adequate water supply in the Delta for reasonable and beneficial uses of water and relegates to lesser priority all exports of water from the Delta to other areas for any purpose." (Emphasis added.) (See Exhibit 17.)</p> <p>As related to the Peripheral Canal or Tunnels or any other isolated conveyance facility, the requirements of WC 12205 are particularly relevant.</p> <p>"It is the policy of the State that the operation and management of releases from storage into the Sacramento- Joaquin Delta of water for use outside the area in which such water originates shall be integrated to the maximum extent possible to permit fulfillment of the objectives of this part." The objectives include salinity control and an adequate water supply. Conveyance facilities which transport stored water to the export pumps with no outlets or releases to provide salinity control and an adequate water supply in the Delta would not comply.</p> <p>The export projects must additionally fully mitigate their respective impacts and meet the affirmative obligations to the Delta and other areas of origin including those related to flow. Failure to so do results in a shift of the cost of the project to someone else. The State Water Resources Development Bond Act was intended to preclude such a shift in costs. See also Goodman v. Riverside (1993) 140 Cal.App.3d 900 at 906 for the requirement that the costs of the entire project be paid by the contractors. Water Code Section 11912 requires that the costs necessary for the preservation of fish and wildlife be charged to the contractors. The term "preservation" appears to be broader than mitigation and appears to create an affirmative obligation beyond mitigation.</p> | |
| 1561 | 27 | <p>Title 34 of Public Law 102-575 referred to as the Central Valley Project Improvement Act in Section 3406(b)(1) authorizes and directs the Secretary of Interior to enact and implement a program which makes all reasonable efforts to ensure by the year 2002 natural production of anadromous fish (including salmon, steelhead, striped bass, sturgeon and American shad) will be sustainable on a long term basis at levels not less than twice the average levels attained during the period of 1967-1991.</p> <p>Reliability of water supply for exports from the Delta must be junior to the needs and obligations requiring water in the Delta and other areas of origin including fish and wildlife needs. The modeling and analysis should provide a clear confirmation of the types and numbers of years when no water will be available for export and provide estimates of the amounts that might be available in other years. Care should be taken to model carryover storage requirements with due consideration of meeting temperature, flow and statutory requirements to determine the firm yield available for export.</p> <p>Reliability of water supply for Northern California requires that water to meet the needs of and obligations to restore and even enhance fish not be exported.</p> | <p>Modeling used to estimate effects on water supply, surface water, water quality and fish and aquatic resources is summarized in Chapter 5 (Water Supply) and Appendix 5A of the 2013 Draft EIR/EIS, 2015 RDEIR/SDEIS, and Final EIR/EIS and in the these resource chapters: Chapter 6 (Surface Water), Chapter 8 (Water Quality) and Chapter 11 (Fish and Aquatic Resources).</p> <p>The CALSIM modeling prioritizes existing requirements, including SWRCB Decision 1641 requirements, and the requirements of the existing USFWS and NMFS BiOPs. Each of the alternatives in the EIR/EIS addresses varying levels of export and Delta outflows to present a reasonable range of actions considered in this Final EIR/EIS.</p> <p>For more information regarding area of origin protections, please see Master Response 26.</p> |
| 1561 | 28 | <p>Both State and Federal laws seek to prevent degradation of water quality. Isolated conveyance will remove the higher quality Sacramento River water from the Delta pool thereby reducing the dilution of the poorer quality water returning to the Delta by way of the San Joaquin River from SWP and CVP operations which deliver water to the west side of the San Joaquin Valley. The delivery of such water to the San Luis Unit was prohibited by the San Luis Act of 1960 unless there was a Valley Drain with an outlet to the ocean.</p> | <p>All of the potential effects on water quality in the Delta are described in the 2013 Draft EIR/EIS, 2015 RDEIR/SDEIS, and Final EIR/EIS Chapter 8 (Water Quality) which addresses the potential changes in water quality constituents and their effects on Delta beneficial use in locations throughout the Delta. Based on the analysis in the RDEIR/SDEIS for Alternative 4A, effects on EC could be reduced by implementing Mitigation Measure WQ -11. This alternative attempts to balance need for more reliable water supply with the purpose</p> |

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| | | (See Exhibit 18). The prohibition was circumvented. Even the promise that "A much needed drainage system and water supply will be provided in the San Joaquin Valley" included in ballot argument in favor of the California Water Resources Development Act (SWP) was not kept. (See Exhibit 16). The BDCP Purposes unreasonably seek to maintain and increase exports from the Delta to the west side of the San Joaquin Valley which degrade Delta water quality. The commitment to isolated conveyance aggravates such degradation. | of restoring and protecting ecosystem conditions and water quality. |
| 1561 | 29 | <p>The provision of salinity control and an adequate supply for the Delta was deemed to be of utmost importance and is a critical feature of a reliable supply for the Delta.</p> <p>Salinity control for the Sacramento-San Joaquin Delta is a primary purpose for Shasta Dam.</p> <p>Water Code Section 11207 provides:</p> <p>"[Section]11207. Primary purposes</p> <p>Shasta Dam shall be constructed and used primarily for the following purposes:</p> <ol style="list-style-type: none"> Improvement of navigation on the Sacramento River to Red Bluff. Increasing flood protection in the Sacramento River. Salinity control in the Sacramento-San Joaquin Delta. Storage and stabilization of the water supply of the Sacramento River for irrigation and domestic use. (Added by Stats. 1943, c 370, p. 1896) (Emphasis added.) | <p>The EIR/EIS analysis includes a presentation of a range of alternatives that provide various levels of Delta export and outflow and CALSIM modeling includes requirements to meet existing SWRCB Decision 1641 requirements. For more information regarding area of origin protections, please see Master Response 26.</p> <p>For additional information regarding water quality, please see Master Response 14.</p> |
| 1561 | 30 | <p>The Delta Protection Act of 1959 in Water Code 12200 specifically provides: "It is, therefore, hereby declared that a general law cannot be made applicable to said Delta and that the enactment of this law is necessary for the protection, conservation, development, control and use of the waters in the Delta for the public good."</p> <p>The degradation of water quality in the Delta adversely impacts agricultural, industrial, urban and recreational (including fish and wildlife) uses in the Delta and surrounding areas as well as areas served with exports from the Delta.</p> <p>Except as provided by agreement, salinity control and the adequacy of the quality of the water supply for the Delta is determined by water quality objectives set by the State Water Resources Control Board. Such objectives provide the minimum level deemed necessary to protect beneficial uses. Although the objectives are set for certain uses for certain periods, it is the composite of all objectives which the SWRCB determined would provide the protection for all beneficial uses. Such objectives have at times been violated and it is critical to the rigorous and objective analysis of alternatives to incorporate with and without compliance conditions.</p> | <p>The water quality analysis (Chapter 8) evaluated compliance with chloride objectives (Impact WQ-7), which were established by the SWRCB for the protection of municipal and industrial uses, and with EC objectives (Impact WQ-11), which were established for the protection of agricultural beneficial uses. Changes in frequency of objective exceedance were identified, for both Existing Conditions and the alternatives. Thus, the analysis does account for conditions under which objectives may be exceeded. Exceedance of objectives in modeling does not entail predictions of actual exceedance, but is a metric by which to assess environmental impacts of the project.</p> <p>For additional information regarding water quality, please see Master Response 14.</p> |
| 1561 | 31 | <p>Federal law is specific as to the obligations for the CVP. PL99-546 (HR3113) specifically provides:</p> <p>"(b)(1) Unless the Secretary of the Interior determines that operation of the Central Valley</p> | <p>This comment is similar to the one made in Comment 1561- 28. Please see the response to Comment 1561-28 for more information regarding the water quality analysis. Alternative 4A attempts to balance need for more reliable water supply with the purpose of restoring and protecting ecosystem conditions and water</p> |

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| | | <p>project in conformity with State water quality standards for the San Francisco Bay/Sacramento-San Joaquin Delta and Estuary is not consistent with the congressional directives applicable to the project, the Secretary is authorized and directed to operate the project, in conjunction with the State of California water project, in conformity with such standards. Should the Secretary of the Interior so determine, then the Secretary shall promptly request the Attorney General to bring an action in the court of proper jurisdiction for the purposes of determining the applicability of such standards to the project.</p> <p>(2) The Secretary is further directed to operate the Central Valley project, in conjunction with the State water project, so that water supplied at the intake of the Contra Costa Canal is of a quality equal to the water quality standards contained in the Water Right Decision 1485 of the State of California Water Resources Control Board, dated August 16, 1978, except under drought emergency water conditions pursuant to a declaration by the Governor of California. Nothing in the previous sentence shall authorize or require the relocation of the Contra Costa Canal intake."</p> <p>Section (b)(1) does not allow for the Bureau of Reclamation to operate the CVP without conforming to the State water quality standards for the San Francisco Bay/Sacramento-San Joaquin Delta and Estuary even if the State Water Resources Control Board is willing to look the other way. A determination by a court of law is required. (See Exhibit 19.)</p> <p>There are specific processes and procedures for changes to Water Quality Control Plans including review by the United States Environmental Protection Agency, which are not being considered.</p> <p>Section (b)(1) is thus applicable and requires U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service compliance unless the Secretary of Interior makes a determination that compliance is inconsistent with congressional directives applicable to the project and then the Attorney General is to be requested to bring a legal action for a court determination of the applicability of the standards. There is no such court determination that would allow the CVP to operate without conforming to the standards.</p> <p>Section (b)(2) provides an additional constraint with regard to the water quality at the intake to the Contra Costa Canal. Even if the standards were determined by the court to not be applicable to the CVP, then the D-1485 water quality standards would be applicable to the intake of the Contra Costa Canal except under drought emergency water conditions pursuant to a declaration by the Governor of California.</p> <p>In 2004 Congress passed another law to ensure that Delta water quality standards and objectives would be met.</p> <p>PL 108-361 (HR 2828) in pertinent part provides: "(D) Program to Meet Standards. -</p> <p>(I) In General. - Prior to increasing export limits from the Delta for the purposes of conveying water to south-of- Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a project to meet all existing water quality standards and objectives</p> | <p>quality.</p> <p>For additional information regarding water quality, please see Master Response 14.</p> |

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| | | <p>for which the Central Valley Project has responsibility." (See Exhibit 20.)</p> <p>The BDCP purpose of increasing exports from the Delta which to the extent such are for serving south-of-Delta Central Valley Project contractors would be directly contrary to the direction of Congress which was to assure that all existing (October 25, 2004) water quality standards and objectives would first be met.</p> | |
| 1561 | 32 | <p>THE BDCP HAS UNREASONABLY DEFINED PURPOSES AND NEED TO CONSTRAIN DELTA ECOSYSTEM IMPROVEMENTS TO ALTERNATIVES WHICH CONVERT AGRICULTURAL LAND TO HABITAT RATHER THAN REDUCE SWP AND CVP EXPORT OF WATER NEEDED TO PROVIDE ADEQUATE WATER FLOW AND QUALITY</p> | <p>The 2013 Draft EIR/EIS presented a reasonable range of alternatives based on the project objectives and purpose and need that includes habitat restoration quantities needed to help meet the BDCP goal of species recovery. These alternatives also included operational requirements intended to improve conditions for covered fish species. The effect of alternatives on flow and water quality are fully addressed in Chapter 6, Surface Water and Chapter 8, Water Quality of this Final EIR/EIS, including for Alternatives 4A, 2D and 5A which were included in the RDEIR/SDEIS. Alternatives 4A, 2D and 5A also offer a reduction in agricultural land conversion compared to other alternatives, made possible by the change in ESA/CESA compliance approaches for these alternatives.</p> <p>For additional information regarding the project's purpose and need, please see Master Response 3. See also Final EIR/EIS Chapter 13, Land Use, and 14, Agricultural Resources. For additional information regarding agricultural impact mitigation, please see Master Response 18.</p> |
| 1561 | 33 | <p>There is strong evidence indicating that fish need water flowing into and out of the Delta to the Bay. The timing and amounts are the subject of ongoing debate and evaluation.</p> <p>The SWP and CVP affect flow into and out of the Delta primarily through diversions to storage and direct diversions from the tributaries and from locations in the Delta to areas outside the Delta. The reliability of water supply for fish at times directly conflicts with the reliability of the water supply for SWP and CVP deliveries for other purposes and in particular exports from the Delta. The priorities for providing such reliability are established by law.</p> | <p>Operations for the proposed project will 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) and any updates to these requirements. 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> |
| 1561 | 34 | <p>Water Code Section 85086 of the Delta Reform Act of 2009 assigned to the State Water Resources Control Board the task of determining instream flow needs and new flow criteria for the Delta ecosystem necessary to protect public trust resources. Such determinations have not yet been completed, yet the BDCP and DEIS/EIR have been prepared and steps towards design and construction are underway. Such flow criteria are important to the required rigorous exploration and objective evaluation of all reasonable alternatives required by 40 CFR 1502.14. The rush to decision in advance of critical evaluations is further evidence of predetermination and lack of a good faith effort at full disclosure and analysis of impacts.</p> | <p>While advancing a proposed project is the very heart of any EIR/EIS, the lead agencies are still required to examine all the alternatives before selecting one. Eighteen different action alternatives are being studied at the same level of detail and are being considered. Additionally, a full discussion of the No Action Alternative is also included in the document and the lead agencies may still choose to adopt the No Action Alternative if they feel like none of the action alternatives are appropriate. The Proposed Project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations, including the State Water Resources Control Board. Please see Master Response 4 for additional discussion regarding alternatives development. See also Final EIR/EIS Chapter 4, Approach to the Environmental Analysis. With regards to compliance with the Delta Reform Act, please see Master Response 31.</p> |
| 1561 | 35 | <p>Driving the need for ecosystem restoration is the need to address the dramatic decline in fish species and in particular those in danger of extinction. The BDCP puts forth the proposition that habitat in the Delta and factors other than the amount flow into and through the Delta are the cause of the subject fish declines. They discount the impact of SWP and CVP exports on the amount of flow into and through the Delta from diversion to storage and direct diversion.</p> <p>The correlation between SWP d CVP exports and the decline of the fisheries has been a</p> | <p>The Draft BDCP presented a comprehensive conservation strategy for multiple Delta species which included changes in the way water is diverted from the Delta (CM1), increases in habitat protection, enhancement and restoration (CMs 2-11) and measures to address other potential stressors on the Delta ecosystem (CMs 12 -21). The Draft BDCP proposed that all of these conservation measures would be needed to meet the HCP/NCCP goal of recovery of covered species in the Delta.</p> |

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| | | <p>concern for many years. In August of 1978 the State Water Resources Control Board rendered its Water Right Decision 1485. The Decision was the culmination of 32 days of evidentiary hearing initiated on November 15, 1976 and concluded on October 7, 1977. At that time the striped bass index was considered to be the indicator of ecosystem health for the Delta and Suisun Marsh. Striped bass were in effect the "canary in the coal mine". As the years passed and striped bass populations plummeted, the water exporters claimed striped bass to be invasive species, predators on endangered species and major cause of fish declines wrongfully attributed to the export of water. The canary died and the death was ignored to facilitate greater exports. As Exhibits 22-25 show, striped bass, steelhead, delta smelt, fall- run Chinook salmon and winter-run Chinook salmon all co-existed at relatively high populations at lower export levels.</p> <p>In 1978 the State Water Resources Control Board concluded in D-1485 at page 13 that:</p> <p>"To provide full mitigation of project impacts on all fishery species now would require the virtual shutting down of the project export pumps." (See Exhibit 21.)</p> <p>The SWRCB also concluded in D-1485 at page 14 that:</p> <p>"Full protection of Suisun Marsh now could be accomplished only by requiring up to 2 million acre feet of fresh water outflow in dry and critical years in addition to that required to meet other standards." (See Exhibit 21.)</p> <p>Exports from the Delta were not curtailed and the additional 2 million acre feet of outflow was not provided for the marsh.</p> <p>Exhibits 22-25 show that significant declines in fish populations commenced when annual exports reached 2 million acre feet. Increased development in the watersheds and the effects of climate change would indicate that additional water yield would have to be developed within the Delta watershed to provide a comparable level of fish protection for the future and maintain the 2 million acre feet of exports. Little or no export water in dry years and more in wet years would likely be necessary in any event.</p> <p>An examination of the fish population graphs [See ATT23] indicates that restoration of the ecosystem for fish is not correlated with Delta wetland habitat conditions in the 1850's or at all. The likely relationship is to water conditions, particularly flow.</p> <p>The Delta was fully leveed and reclaimed by about 1930.</p> <p>"By 1930 all but minor areas of the swampland had been leveed and were in production." (See page 8 of December 1960 Bulletin 76 - Exhibit 14.) The U.S. Army Corps of Engineers completed project levee construction on the San Joaquin River in the early 1960's. There are no significant changes in leveed areas or even riverine habitat which appear to be the cause of the decline of the fisheries. In fact, there have been increases in Delta wetland habitat during the periods of apparent decline. Mildred Island flooded in 1983 and has not been reclaimed. Little Mandeville and Little Frank's Tract flooded in the 1980's and have not been reclaimed. Lower Liberty Island levees were not restored and the area has been in a tidal wetland condition since at least 2002.</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.</p> |
| 1561 | 36 | The focus on conversion of Delta land to habitat as a substitute for water for fish is | A RDEIR/SDEIS was developed and circulated in 2015, which included 3 new Alternatives including the new |

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| | | <p>misplaced and the result of the manipulated BDCP purposes. Adequate analysis has not been done to determine if development of shallow wetland habitat is actually detrimental to salmon and other anadromous fish. In particular, stranding and predation from otters, egrets, herons, cormorants, gulls, white pelicans and the like needs further analysis. The limited study (Exhibit 26) showing a picture of larger salmon smolts raised for a time in a wetland versus smaller smolts raised in the channel is cited by BDCP proponents as the evidence that shallow seasonal wetland in the Delta would be a substitute for flow and justification for a 50 year take permit. The study monitored caged smolts in the channel where the fish must constantly swim against the current and compared those smolts to smolts in cages in shallow wetlands where there was little or no current. The experiment did not attempt to evaluate stranding or predation and it is doubtful that the smolts in the channel cages if uncaged would spend as much time swimming against the stronger currents rather than seeking areas of the channel where the velocity is lower. The presentation of results by BDC including the fat fish/skinny fish photo neglected to show the sizes of the fish from the cages in the channel upstream of the shallow habitat which reportedly were comparable to those in the wetlands. "During periods of low, clear water, fish growth rates in the river site above the floodplain were comparable to those in the floodplain". (Exhibit 26, pg 1.)</p> | <p>preferred alternative, 4A. 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 out-migrating juvenile salmonids into the low-survival interior Delta. Alternative 4A, does not include large-scale floodplain habitat. Restoration proposed would be designed to mitigate for lost habitat values.</p> <p>See Final EIR/EIS Chapter 11, Fish and Aquatic Resources and Chapter 31 regarding mitigation and environmental commitments. See also Master Response 5 regarding the planning process, Master Response 22 regarding mitigation and environmental commitments, and Master Response 23 regarding other stressors in the Delta.</p> |
| 1561 | 37 | <p>Creation of Floodplain Habitat Is Not a Substitute for Flow</p> <p>The available evidence and studies do not support such a substitution. The floodplain habitat which is suggested as potentially beneficial is that which is inundated by high flows for a limited period; involves a large area of water of a proper depth to help avoid predation; assumes avian predator populations are limited; is properly drained to avoid stranding and avoids increased water temperatures detrimental to salmonids.</p> <p>The Jeff Opperman Final Report for Fellowship R/SF-4 [See ATT26] referenced above containing the picture of the fat fish and skinny fish is often shown as support for the proposition that floodplain habitat can be substituted for flow (Exhibit 26.) The study does not put forth that conclusion but suggests "that juvenile Chinook benefit from access to floodplain habitats". (Page 2) It is important to recognize that the test fish were caged and thus predation from birds, fish and other animals was not an issue. Stranding was down-played but admittedly not tested. The test was conducted in and along the Cosumnes River. The skinny fish were in the river swimming against the current and because they were in cages and couldn't move with the current or move to quiet and more productive water. The fat fish obviously saved their energy for growth and apparently benefitted from improved food availability. The report states "During high flows the river offers poor habitat and fish living in this type of habitat will tend to be displaced downstream." High flows and displacement downstream are likely not detrimental. It is generally accepted that the salmon do well in high flow years. The return of adults (escapement) is usually higher two and one-half years after a high flow year. It is recognized that ocean conditions also play a part and may in some cases reduce escapement nullifying the benefit of high flow. The difference in food availability in the high flow channel versus in the quiet water may not be significant in the test given the consumption of energy and lack of opportunity for the skinny fish to move to more favorable parts of the river. Displacement downstream into the cooler and more productive parts of the estuary is likely not bad for displaced salmon smolts.</p> | <p>This comment is similar to the comment made in Comment 1561-36. Please see the response to comment 1561-36 for more information.</p> |

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| 1561 | 38 | <p>Floodplain Habitat Not Accompanied by High Flow Does Not Appear to Result in Increased Chinook Salmon Ocean Survival and May Not Improve Survival of Sacramento River Juvenile Chinook Salmon Migrating to the Ocean</p> <p>In the study titled "Floodplain Rearing of Juvenile Chinook Salmon: Evidence of enhanced growth and survival" by Sommer, et al. (2001), a copy of which is Exhibit 27, tests were conducted in the Yolo Bypass in 1998 and 1999. The study concluded that during such years salmon increased in size substantially faster in the seasonally inundated agricultural floodplain than in the river, suggesting better growth rates. The study, however, provides: "Survival indices for coded-wire-tagged groups were somewhat higher for those released in the floodplain than for those released in the river, but the differences were not statistically significant. Growth, survival, feeding success, and prey availability were higher in 1998 than in 1999, a year in which flow was more moderate indicating that hydrology affects the quality of floodplain rearing habitat". (Exhibit 27, pg 1.)</p> <p>In the discussion the authors provide:</p> <p>"Mean length increased faster in the Yolo Bypass, during each study year, and CWT fish released in the Yolo Bypass were larger and had higher apparent growth rates than those released in the Sacramento River. It is possible that these observations are due to higher mortality rates of smaller individuals in the Yolo Bypass or of larger individuals in the Sacramento River; however we have no data or reasonable mechanism to support this argument."</p> <p>"Elevated Yolo Bypass survival rates are also consistent with significantly faster migration rates in 1998, the likely result of which would be reduced exposure time to mortality risks in the delta, including predation and water diversions."</p> <p>In the study "Habitat Use and Stranding Risk of Juvenile Chinook Salmon on a Seasonal Floodplain" by Sommer, et al. (2004), a copy of which is Exhibit 28, the authors build upon the above study with further testing in 2000 and present their analysis of ocean survival.</p> <p>The author's abstract provides:</p> <p>"Although juvenile Chinook salmon <i>Oncorhynchus tshawytscha</i> are known to use a variety of habitats, their use of seasonal floodplains, a highly variable and potentially risky habitat, has not been studied extensively. Particularly unclear is whether a seasonal floodplain is a net " source" or net " sink" for salmonid production . . . Adult ocean recoveries of tagged hatchery fish indicate that seasonal floodplains support survival at least comparable with that of adjacent perennial river channels. These results indicate that floodplains appear to be a viable rearing habitat for Chinook salmon, making floodplain restoration an important tool for enhancing salmon production. (Emphasis added.)</p> <p>The data provided for ocean survival is as follows:</p> <p>Table 1. - Number of coded wire tags recovered in the ocean and commercial fisheries for Chinook salmon released in the Yolo Bypass and Sacramento River. The total number of tagged fish released in each location for each year is shown in parentheses. The survival ration is calculated as the number of Yolo Bypass recoveries divided by the number of</p> | <p>This comment is similar to the comment made in Comment 1561-36. Please see the response to comment 1561-36 for more information.</p> |

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| | | <p>Sacramento River recoveries.</p> <p>[Table 1 included in letter]</p> <p>A more complete analysis is required.</p> | |
| 1561 | 39 | <p>It Is Unclear Whether Shaded River Aquatic Habitat Is Good for Special Status Fish</p> <p>It is assumed that shaded river aquatic habitat is desirable for special status fish and that implementation of the U.S. Army Corps of Engineers Engineer Technical Letters or other disturbance would require mitigation. Attention is called to the BDCP Draft Chapter 8 which puts forth the need to control predators by removing structures which affect flow fields and provide shade. The focus appears to be on abandoned docks, pilings and the like, however, shaded river aquatic habitat can provide the same effect on flow and provide shade. The impact of shaded river aquatic habitat on special status fish is unclear.</p> | Chapter 11 (Fish and Aquatic Resources) of the 2013 Draft EIR/EIS, 2015 RDEIR/SDEIS, and Final EIR/EIS analyzes environmental impacts related to the project alternatives on both covered and non-covered fish species. For further information regarding the effects of project on fish species, please see Chapter 11. |
| 1561 | 40 | <p>Increase in Tidal Prism</p> <p>A significant additional threat occurs where such floodplain habitat is created in the tidal zone where increases in the tidal prism results in increased flood and ebb tide flows. Such increase in the tidal prism created by the flooding of Lower Liberty Island has been found to have caused juvenile salmon migrating to the ocean to be pushed from their normal Sacramento River migration route back up into the lower region of the Yolo Bypass thereby further exposing such fish to the risk of predation, stranding and detrimental temperatures. (See attached excerpts from "Insights into the Problems, Progress, and Potential Solutions For Sacramento River Basin Native Anadromous Fish Restoration", April 2011 by Dave Vogel). (Exhibit 29 [see ATT29].)</p> | This comment is similar to the comment made in Comment 1561-39. Please see the response to comment 1561-39 for more information. |
| 1561 | 41 | ATT1: Letter from Karen Scarborough, Undersecretary of the State of California Resources Agency and Chair of the BDCP Steering Committee, Dated January 27, 2009 to the Central Delta Water Agency | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 42 | ATT2: The Bay Delta Conservation Plan: Points of Agreement for Continuing into the Planning Process (November 16, 2007) | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 43 | ATT3: August 26, 2008 Letter from Dean Ruiz, attorney for the Central Delta Water Agency, to Karen Scarborough requesting membership on the BDCP Steering Committee | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 44 | ATT4: November 13, 2008 Letter from Dante Nomellini, Manager and Co-Counsel for the Central Delta Water Agency, to Karen Scarborough to execute the Oct. 26, 2006 Planning Agreement | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 45 | ATT5: Memorandum of Agreement regarding Collaboration on the Planning, Preliminary Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program in connection with the development of the Bay Delta Conservation Plan | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |

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| 1561 | 46 | ATT6: First Amendment to the Memorandum of Agreement regarding collaboration on the planning, preliminary design and environmental compliance for the Delta Habitat Conservation and Conveyance Program in connection with development of the Bay Delta Conservation Plan | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 47 | ATT7: Article from Huffington Post, dated May 28, 2014. San Francisco Chronicle referencing Jerry Brown comments on BDCP | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 48 | ATT8: Letter Remarks of Secretary of the Interior Ken Salazar The Commonwealth Club, San Francisco, CA September 19, 2011 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 49 | ATT9: Memorandum dated May 6, 2014 to all DWR Employees from DWR on Establishment of the DWR BDCP Office and the DHCCP Design and Construction Enterprise | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 50 | ATT10: Newspaper article (title only) from San Francisco Chronicle, no date, entitled "Jerry Meral: Tunnels won't save delta" | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 51 | ATT11: First Amendment to the Memorandum of Agreement regarding collaboration on the planning, preliminary design and environmental compliance for the Delta Habitat Conservation and Conveyance Program in connection with the development of the Bay Delta Conservation Plan | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 52 | ATT12: Graph of Estimated Seasonal Natural Runoff, North Coast and Central Valley 1917-18 and 1946-47 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 53 | ATT13: Table 3. Sacramento River Multiyear Droughts (reconstructed from tree rings prior to 1900) | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 54 | ATT14: Bulletin No. 76 Delta Water Facilities Title Page, Preliminary edition, December 1960, Department Water Resources and Governor Edmund Brown | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 55 | ATT15: The State Water Project Delivery Reliability Report 2013, with tables showing historical deliveries of SWP table water 2003-2012 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 56 | ATT16: First page of The California Water Resources Development Bond Act of 1960 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 57 | ATT17: Contract between the State of California Department of Water Resources and the North Delta Water Agency for the assurance of a dependable water supply of suitable | 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 |

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| | | quality. This contract, made this 28th day of January, 1981. | already addressed in the Final EIR/EIS. |
| 1561 | 58 | ATT18: Copy of Public Law 86-488, June 3, 1960 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 59 | ATT19: Copy of Public Law 99-546 (HR 3113) Title I, Coordinated Operations Project Operation Policy. An Act to implement the Coordinated Operation Agreement, the Suisun Marsh Preservation Agreement, and to amend the Small Reclamation Projects Act of 1956, as amended, and for other purposes. | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 60 | ATT20: Public Law 108-361, October 25, 2004 evaluation of lower Mokelumne River floodway improvements. | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 61 | ATT21: Sacramento-San Joaquin Delta and Suisun Marsh Water Right Decision 1485, August 1978 State Water Resources Control Board | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 62 | ATT22: Graphs for Delta Smelt Recovery Index 1987-2011, Sacramento steelhead and exports | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 63 | ATT23: Figure 2. Graph of estimated yearly natural production and in-river escapement of adult fall-run Chinook salmon in the Central Valley rivers and streams. 1952-1966 and 1992-2011 numbers are from CDFG Grand Tab (Apr 24, 2012). 1967-1991 Baseline Period numbers are from Mills and Fisher (CDFG, 1994). | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 64 | ATT24: Figure 4. Graph of estimated yearly adult natural production, and in river adult escapements of winter-run Chinook salmon in the Central Valley rivers and streams. 1992-2011 numbers are from CDFG Grand Tab (Apr 24, 2012). 1967-1991 Baseline Period numbers are from Mills and Fisher (CDFG, 1994). | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 65 | ATT25: Graph striped bass indices from California Department of Fish and Wildlife from 1959-1964 p. 1 only | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 66 | ATT26: Page 1 of Report by Jeff Opperman Final Report for Fellowship R/SF-4 on topic of how native fish use California floodplains | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 67 | ATT27: Page 1 of article, Floodplain rearing of juvenile chinook salmon: evidence of enhanced growth and survival. T.R. Sommer, M.L. Nobriga, W.C. Harrell, W. Batham, and W.J. Kimmerer from Canadian Journal Fish and Aquatic Science, 2001 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |

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| 1561 | 68 | ATT28: Page 1 of article titled "Habitat Use and Stranding Risk of Juvenile Chinook Salmon on a Seasonal Floodplain" by Ted R. Sommer, William C. Harrell, and Matthew L. Nobriga, California Department of Water Resources, Sacramento California 95816, USA | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1561 | 69 | ATT 29: Report entitled Insights into the Problems, Progress, and Potential Solutions for Sacramento River Basin Native Anadromous Fish Restoration. April 2011. Prepared for: Northern California Water Association and Sacramento Valley Water Users Prepared by: Dave Vogel, Senior Scientist, Natural Resource Scientists, Inc. | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1562 | 1 | The Stone Lakes National Wildlife Refuge (NWR) is a vital part of the Pacific Flyway and an integral player in meeting the goals set forth in the North American Waterfowl Conservation Plan. For example, at Stone Lakes NWR, between 2001 to 2014, the greater sandhill crane population has gone from zero to over 700 birds while the greater white-fronted goose count increased from 30 to over 16,000 birds. Despite this success, Stone Lakes NWR faces significant habitat challenges. In 2005, the Refuge was designated as one of the six most threatened refuges in the nation. (See "State of the System: An Annual Report on the Threats to the National Wildlife System, National Wildlife Refuge Association," 2005.) This designation was based primarily on impacts from surrounding urbanization. The Refuge is now even at greater risk due to the proposed tunnel conveyance system that is at the heart of the BDCP. | 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 feasible 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). The comment provides general information regarding the Stone Lakes National Wildlife Refuge in terms of its importance and challenges as wildlife refuge. The lead agencies appreciate this information and avoidance and minimization of impacts to the refuge was a factor in the design and alignment refinements that have been made in the new preferred alternative, Alternative 4A. |
| 1562 | 2 | The Stone Lakes National Wildlife Refuge and surrounding foraging acreage is "ground zero" for BDCP impacts. The primary proposed conveyance facility components, consisting of three massive pumping stations, the tunnels, new transmission lines and an intermediate forebay are all located either on or very close to the Refuge and have significant potential to degrade or threaten the Refuge's resources and habitat. Wildlife, staff and visitors will all be impacted by construction noise, lighting and extreme levels of truck traffic that will occur during the lengthy construction process. | Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. As noted, Alternative 4 (the BDCP) remains a potentially feasible alternative and is the potential impacts of that alternative are fully analyzed in the Draft EIR/EIS, RDEIR/SDEIS, and Final EIR/EIS. The preferred alternative, 4A, would lie to the east of the Stone Lakes National Wildlife Refuge. Please refer to Chapter 23, Noise, Chapter 15, Recreation, Chapter 12, Terrestrial Biological Resources, Chapter 17, Aesthetics, and Chapter 19, Transportation, for descriptions of potential impacts to these resources under all of the alternatives. |
| 1562 | 3 | Since the time Friends of Stone Lakes National Wildlife Refuge (FSL) learned that the Project was proposed to traverse the Refuge, FSL has been engaged in the BDCP process, first expressing major concerns in Scoping comments submitted in May 2008. We advocated for creation of a Stone Lakes working group to address the impacts of the Project specifically on the Refuge. A Stone Lakes Technical Working Group process subsequently began in June 2013, with eight meetings total. At these meetings, FSL has worked diligently with BDCP planning staff, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife ("DFW"), and Department of Water Resources ("DWR"), among others to reduce impacts on the Refuge. We appreciate the efforts of these agencies and the BDCP consultant staff in attempting to address our concerns with the | The Lead Agencies appreciate the interest of the Friends of Stone Lakes National Wildlife Refuge in the proposed project and their continued involvement in the planning process. Some Conservation Measures that were originally described in the 2013 Public Draft BDCP are included in the new proposed project as Environmental Commitments. Natural Communities Restoration and Channel Margin Enhancement in the Byron area are included in these new Environmental Commitments. Mitigation under the Proposed Project calls for the protection of grasslands, vernal pool, and alkali seasonal wetland communities near Byron. This is in recognition of the high value these lands serve as part of the larger, contiguous, undeveloped lands to the west (e.g., Los Vaqueros watershed). The protection of grassland and vernal mesic communities in this region have potential to benefit a number of covered and native species, including: Swainson's hawk, burrowing owl, California red-legged frog, California tiger salamander, alkali milk-vetch, legumere, etc. For |

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| | | <p>project, but many concerns remain.</p> <p>Over the course of these meetings, progress has been made in reducing the project's impacts on the Refuge and surrounding areas. (See Exhibit A, ICF Summary Status Report, April 18, 2014 [ATT 1].) For example, the forebay is now smaller with a lower elevation (though it is now located within the Refuge boundary). Also, some inappropriate tunnel muck sites have been relocated out of primary bird habitat areas. The BDCP is also now committing to create a new wetland roosting area and associated uplands to better link the flyway route. As of this writing, however, not all of the issues identified by FSL have been resolved by the Stone Lakes Technical Working Group. (See Exhibit B, FSL Unresolved Issues, May 30, 2014 [ATT 2]; Exhibit C, Meeting Notes for June 5, 2014 Meeting by ICF [ATT 3].) As can be seen in Exhibit B and C, most of the remaining outstanding issues have now been delegated to the interagency Technical Terrestrial Team; we have been advised there may be no further Stone Lakes Technical Working Group meetings that include FSL. We are concerned that without our participation, these remaining issues may not ever be addressed. Though we have made significant progress with respect to improving treatment of the greater sandhill crane in the BDCP and EIR/EIS (see Exhibit D, Table of Remaining Crane Tasks by ICF [ATT 4], and Exhibit E, Crane Comments for Discussion [ATT 5]), we still have outstanding concerns regarding protection of the Western Burrowing Owl and Swainson's Hawk that were not addressed in our Stone Lakes Technical Working Group meetings (see Exhibit F, Stone Lakes NWR Comments on Western Burrowing Owl Conservation Strategy, May 22, 2014 [ATT 6]).</p> | <p>more information please see Appendix 3B Environmental Commitments, AMMs, and CMs of the RDEIR/SDEIS and Master Response 22.</p> |
| 1562 | 4 | <p>Even with the progress that has been made on the BDCP and other mitigation efforts, Friends of Stone Lakes National Wildlife Refuge (FSL) is concerned that impacts to species within and near the Refuge that are proposed for coverage in the plan from CM 1, the tunnel conveyance facility, still have not been adequately addressed. Moreover, we have outstanding concerns about the impacts of the other conservation measures -- especially those that convert existing bird habitat to aquatic habitat --on the species the Refuge seeks to conserve. The missions of the Stone Lakes NWR as well as the missions of the BDCP approving agencies promote the protection and improvement of habitat within the Refuge. FSL still questions if the BDCP's emphasis on construction of a tunnel conveyance system as a "conservation measure" is consistent with this mission. It is by no means clear that implementation of the BDCP will result in protection of listed species without significantly harming other species.</p> | <p>Please see Master Response 5 for an explanation of why the proposed water conveyance facility was included in the public draft BDCP as a conservation measure. 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 also see Master Response 17 regarding the biological impacts of the new proposed project. No specific content on the EIR/EIS is included in this comment.</p> |
| 1562 | 5 | <p>Overall Concern Regarding Scale of Impact of CM 1 on Refuge.</p> <p>Location of Forebay Facilities within Refuge Boundary Necessitates Permanent Protection of Zacharias Island:</p> <p>The forebay and tunnel entrance for the conveyance facility were originally planned to be located just west of South Stone Lake and close to the community of Hood. The location would have eliminated several hundred acres of prime waterfowl foraging area and had visual and other impacts on the Stone Lakes National Wildlife Refuge, hunting activities and wildlife. DWR, recognizing our concerns, as well as design/cost issues, significantly reduced the size of the forebay and relocated the forebay and tunnel entrance to a location just north of Twin Cities Road, an area predominantly planted in grapes. The impacts on foraging area and on current Refuge managed lands were thereby reduced.</p> | <p>The Recirculated Draft EIR/Supplemental Draft EIS, released in 2015, introduced slightly different locations for some conveyance facilities for Alternative 4 as well as the new preferred alternative, 4A. No conveyance facilities would be placed in Stone Lakes National Wildlife Refuge under Alternative 4 or Alternative 4A, although facilities would be placed next to part of the refuge. Please refer to Chapter 23, Noise, Chapter 17, Aesthetics, Chapter 12, Terrestrial Biological Resources, and Chapter 15, Recreation for more detail on impacts to these resources.</p> |

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| | | DWR presented the revised forebay location and design concept at a meeting of the Stone Lakes Technical Working Group on May 15, 2013. The new forebay would be located within the Refuge legislative project boundary just north of Twin Cities Road and east of the Sierra Pacific ("SP") Cut and levee. The forebay now requires 40 acres, with a surrounding 200 acres for an overflow retention basin, for a total footprint of about 240 acres. Privately owned Zacharias Island, just to the west of the SP Cut and levee and within the Refuge legislative boundary, is now proposed to be included as part of the Project site, with the southern third of the island identified as a tunnel muck storage site. At the completion of project construction, Zacharias Island habitat would be restored. Zacharias Island, which currently provides waterfowl roosting habitat, is a primary conservation area, which is consistent with the Refuge's mission, and would be a very beneficial addition to the Refuge after successful habitat restoration. Friends of Stone Lakes National Wildlife Refuge (FSL) believes the area should be incorporated into the Refuge. | |
| 1562 | 6 | <p>DWR subsequently acknowledged the potential conservation opportunities of the new forebay location in an information sheet titled, "BDCP Refinements Respond to Community and Statewide needs," dated August 2013 and posted on the BDCP website:</p> <p>"Relocating the smaller forebay away from the towns of Hood and Courtland and closer to Interstate 5 on the Glanville Tract also lessens the impacts to roads and bridges, creates conservation opportunities with the Stone Lakes National Wildlife Refuge, and makes it possible to utilize more publicly-owned land."</p> <p>The new location of the forebay within the Stone Lakes National Wildlife Refuge project boundary will have a significant visual presence. We have not located any renderings of the forebay facility in the BDCP plan. It has been described to the Stone Lakes Technical Working Group as a steep-sloped earth structure 30 feet above grade. It will be a visually prominent intrusion on the rural landscape and will be adjacent to a potential recreation corridor along the old Southern Pacific railroad grade owned by the Refuge (the "Sierra Pacific right of way"). The EIR/EIS does not adequately evaluate the visual impact of the forebay either from Twin Cities Road or from the SP right of way. The EIR/EIS document must include and evaluate renderings that demonstrate the impact of the structure.</p> | Please refer to Figure 17-87 of the Draft EIR/EIS and RDEIR/SDEIS, which is a simulation of the proposed Intermediate Forebay as seen from Twin Cities Road. Further analysis is found on pages 17-174 through 17-175 of the Draft EIR/EIS and RDEIR/SDEIS pages 17-180 through 17-182. This portion of land, while within the Stone Lakes National Wildlife Refuge project boundary, is currently in private ownership and is being farmed. The analysis assesses views from the road in that visual context – as changes to land being farmed and as seen from areas with existing visual access (i.e., public views along the roadway) – as this portion of land is not being managed as an active part of the wildlife refuge and does not allow public access. Similarly, the Sierra Pacific right of way is a "potential" recreation corridor but is not currently used as such. The visual analysis cannot speculate on the potential future use of the Sierra Pacific right of way as a recreational trail because its use as such could be affected by a number of factors, including available funding. Therefore, the visual analysis does not assess potential future views from the Sierra Pacific right of way as a recreational feature. |
| 1562 | 7 | <p>The new forebay location within the Stone Lakes National Wildlife Refuge boundary, together with the construction and operation of the intake structures along the Sacramento River just to the north and the power lines supplying them, would significantly impact the Refuge and the wildlife it seeks to conserve, both during construction and after completion. These impacts are identified in the EIR/EIS and are discussed elsewhere in this comment letter. Among the more significant impacts:</p> <ul style="list-style-type: none"> * Tunnel muck material will be stored at several locations within the Refuge boundary, with uncertain long term consequences. * Truck traffic will significantly increase during the multi-year construction period, increasing safety risks, adversely impacting the visitor experience and increasing wildlife mortality. * New permanent high voltage power lines will be constructed within the Refuge boundary that will result in take of greater sandhill cranes and other large migratory | 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 conveyance alignment for Alternatives 4 and 4A have been updated and now lie to the east of the Stone Lakes National Wildlife Refuge. No conveyance facilities would lie within the refuge boundaries. Please refer to Chapter 23, Noise, Chapter 15, Recreation, Chapter 12, Terrestrial Biological Resources, Chapter 17, Aesthetics, and Chapter 19, Transportation, for descriptions of potential impacts to these resources. |

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| | | <p>waterfowl and will visually intrude into the rural landscape and affect the visitor experience.</p> <p>These impacts result in loss of habitat values within the Refuge both during and after construction. The construction of the forebay and tunnel launch site will also create challenges in completing the Refuge concept of a complex of roosting and foraging areas for migratory waterfowl at an important location on the Pacific flyway while providing appropriate recreational opportunities as one of the few urban national wildlife refuges in the country.</p> <p>The Project would introduce a land use that is incompatible with the purpose and function of the Refuge. These actions will also impede the ability to carry out the goals of the Final Comprehensive Conservation Plan ("CCP") to continue to better serve wildlife needs and those of the surrounding communities. [Footnote 2: Available at: http://www.fws.gov/stonelakes/ccp.htm.] (CCP, pp. 71-92.) The Project may also have an upward impact on land prices and may influence willing sellers in ways that would make acquisitions to expand the refuge more difficult.</p> | |
| 1562 | 8 | <p>The U.S. Fish and Wildlife Service has recently acquired the lineal parcel comprising the Sierra Pacific right of way. The Refuge has yet to incorporate the new acquisition into the Stone Lakes Comprehensive Conservation Plan (CCP), but the parcel offers potential for controlled recreational access. The security issues associated with the adjacent presence of a significant component of California's water delivery infrastructure could limit or preclude recreational access within the Refuge.</p> | <p>Because the Notice of Preparation for this project was released in 2009, that timeframe remains the appropriate CEQA baseline for Existing Conditions. While certain updates have been made in the RDEIR/SDEIS, most updates were made only when those updates would affect a significance conclusion. Therefore, because the parcel was not included in the Stone Lakes Comprehensive Conservation Plan by this project's baseline, and further is still not considered a part of the plan, it will not be included in the FEIR/EIS. Please see Master Response 1 regarding the environmental baselines used in the EIR/EIS.</p> |
| 1562 | 9 | <p>The Friends of Stone Lakes National Wildlife Refuge (FSL) communicated concerns over the impacts of the forebay and associated facilities in a November 2, 2013 letter to Jerry Meral:</p> <p>"While we do not oppose the new location as it appears at this time to be the 'least worse' site, we must recognize that the new location will potentially complicate completing the refuge in ways that we cannot completely predict. Landowners may be less willing to cooperatively manage lands for wildlife benefit, enter into conservation easements or sell land to the Refuge at affordable prices. In addition, the Association's long term goal for public access along adjoining the old railroad grade may be compromised by forebay security concerns. We believe that the Tunnel Conveyance Facility project should include additional commitments to assisting the goal of completing the Refuge.</p> <p>(Exhibit G, p. 3.) [See ATT 7]]</p> <p>As a consequence of these tangible and intangible adverse impacts on the Stone Lakes NWR -- and particularly because the BDCP plan preparers specifically proposed the long term conservation of Zacharias Island when the forebay and tunnel entrance were relocated to within the Refuge boundary -- it is appropriate and necessary that the BDCP commit to the permanent long term conservation of Zacharias Island. The BDCP and/or the EIS/EIR [Footnote 3: The requested commitments could alternatively be included in the Implementing Agreement for the BDCP.] should therefore include an enforceable requirement (in the form of an Avoidance and Mitigation Measure ("AMM" or mitigation measures) to commit the Project as follows: (1) BDCP agencies must restore Zacharias</p> | <p>Under Alternative 4, a reusable tunnel material (RTM) site, a barge unloading facility, and a permanent access road would be placed on Zacharias Island, and the tunnel would run underground. The intermediate forebay would be adjacent to the island. While these features are on land Stone Lakes National Wildlife Refuge has a goal of obtaining, the lands are at this time still under private ownership. Therefore, it would be speculative to make specific restoration plans post construction. However, AMM6 and AMM10, as described in Appendix 3B, include a plan for returning RTM sites to their preconstruction conditions. Please refer to AMM2 for a description of rodenticides. Additionally, please refer to Chapter 12, Terrestrial Biological Resources, for analyses of impacts from the proposed conveyance features to wildlife species or habitat.</p> <p>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> |

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| | | <p>Island after project construction; (2) Stone Lakes NWR will receive first right of refusal for fee title or conservation easement of the surface estate of Zacharias Island at nominal cost; and (3) a sufficient endowment to manage the long term conservation of the property is included in any conveyance. [Footnote 4: FSL further believes that the Project description in CM 1 in the BDCP must be amended to include the acquisition of Zacharias Island and make the commitment, as part of BDCP plan implementation, to restore Zacharias Island wildlife habitat, make it available to the USFWS for long term management as part of the Stone Lakes NWR and endow the cost of conservation management.] One approach would be for the BDCP implementing agencies to enter into an agreement with the USFWS prior to the initiation of CM 1 construction. These actions would appropriately reduce the cumulative impacts on the Stone Lakes NWR given the scale of the impact proposed by BDCP.</p> <p>In addition to the ultimate disposition of Zacharias Island, we also remain concerned with management of the forebay to reduce ongoing operational impacts on the Refuge. For example, to address forebay impacts, visual screening with native landscaping to reduce the visual, noise and glare impacts of the facility must also be included as part of the project or as mitigation measures. Also, plans on managing the spillway in a wildlife friendly manner should be included. We are still concerned about rodent control activities and would like to see methods that will not expose hawks, and other predators to poisons. Though these issues have now been deferred to the Terrestrial Technical Team, we request follow up to ensure that they are in fact addressed. (See Exhibit B, item 1 [ATT 2].)</p> | |
| 1562 | 10 | <p>Concerns with Overall Conservation and Mitigation Approach.</p> <p>Placement of Habitat Not Well Planned:</p> <p>Although the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan (CCP) does not include management strategies for enhancing fish species, it is a protected resource included in the conservation goals for existing lakes and sloughs. (CCP, pp. 36-50 (discussing biological resources and species within the Refuge).) However, the BDCP continues to target the southern portion of the Refuge for conversion to tidal habitat. (See Exhibit H, Hypothetical Restoration Areas.) [Footnote 5: Though the Hypothetical Restoration Areas exhibit states that it is not for distribution, it was later released as a public document under the California Public Records Act, and therefore is no longer a confidential draft. These are the same restoration assumptions made for purposes of the BDCP effects analysis.] BDCP should not assume major land use changes within the Refuge that would be inconsistent with the CCP. Moreover, having participated in the BDCP process since 2008, we would expect to be consulted on any major proposals within Refuge boundaries.</p> | Please see response to comment 1562-1. Potential impacts on the Stone Lakes Wildlife Refuge Comprehensive Conservation Plan (CCP) are addressed in the EIR/EIS under Impact BIO-187. |
| 1562 | 11 | <p>Timing of Habitat Replacement is Uncertain.</p> <p>We (Friends of Stone Lakes National Wildlife Refuge) are concerned that many of the benefits to species negatively impacted by the BDCP may never come to pass. In its present form, the BDCP proposes major disruption of greater sandhill crane and other habitat areas for both CM 1 (the Tunnels) as well as the other conservation measures, particularly those that involve flooding of terrestrial habitat to create aquatic habitat.</p> | <p>The commenter provides their opinion that many of the benefits described in the BDCP may never come to pass. However, they do not provide a reason for this opinion. Chapter 6, BDCP Implementation, provides a description and a timeline for the BDCP including restoration and protection opportunities.</p> <p>The commenter also comments that the BDCP proposed major disruption of crane habitat. The Lead Agencies acknowledge the commenter's opinion about the potential effects of BDCP on sandhill crane habitat. Impacts to terrestrial species, including sandhill crane, are analyzed in Chapter 12 of the EIR/EIS. Additionally, please note that Alternative 4A is now the preferred alternative which has been redesigned to</p> |

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| | | | minimize impacts on the greater sandhill crane. For more information regarding the Great Sandhill Crane, please see Master Response 17 on Biological Resources. |
| 1562 | 12 | While the construction of CM 1 appears more certain due to the funding to be provided by the state and federal water contractors, other aspects of the BDCP will only occur if other state and federal funding is provided. (BDCP, Table 8-37.) And, since approval of the BDCP by the U.S. Fish and Wildlife Service is predicated on the BDCP's ability to assure that funding will be available to implement the actions and mitigations we need to know exactly what the funding sources will be in order to evaluate their certainty. If they are not certain, the BDCP should not be approved, nor should take authority be issued. | Please see response to comment 1562-1. Please see Master Response 5 regarding funding for the BDCP. |
| 1562 | 13 | <p>While the BDCP attempts to claim that greater sandhill crane, for instance, will somehow be better off if the BDCP is implemented, reaching such a conclusion requires a number of assumptions. For instance, one must assume that public funding will be provided for CMs 2-22 in a timely and orderly manner. One must also assume that the "new" habitat and/or resources will be provided in advance or at the same time as impacts to existing habitat occurs. We have discussed this issue in the Stone Lakes Technical Working Group, but it has never been completely resolved.</p> <p>An ongoing issue in the BDCP is the presentation of thousands of acres of "created habitat" without reference to the number of acres of habitat that is being destroyed. For instance, the BDCP states that it will create 533 acres of greater sandhill crane habitat. (BDCP, p. 5.6-48.) Yet the BDCP also destroys up to 7,250 acres of greater sandhill crane habitat (4% of its habitat in the plan area). (BDCP, Table 5.6-10.) The net habitat creation numbers for each species/habitat type should be presented in the plan to avoid confusion. Moreover, a higher than 1:1 mitigation ratio for destroyed habitat should be applied. Once this is done, it is difficult to see what the benefit of the plan will be with respect to the species.</p> | Please note that the new preferred alternative, Alternative 4A, no longer includes an HCP component and involves a much smaller amount of restoration acreage. Please see response to comment 1562-1. Please see Master Response 5 regarding funding for the BDCP. The commenter states that the BDCP is lacking a net effects analysis. Analyses were conducted as part of the BDCP to address the net effects on natural communities and species resulting from the adverse effects of covered activities and the beneficial effects of implementing conservation measures. These analyses are presented in for each natural community and species in Chapter 5, Effects Analysis of the BDCP and are also found in Table 5.4-3 Net Effects of BDCP Implementation on Natural Communities, Table 5.6-7. Net Effects of Full BDCP Implementation on Wildlife, and Table 5.6-8. Net Effects of Full BDCP Implementation on Plants. |
| 1562 | 14 | Timing is especially concerning, given the scale of habitat destruction and no enforceable requirement to replace habitat before or at the time of destruction. BDCP Table 3-4 shows an Implementation Schedule, but it is not clear that there will be coordination between the destruction of wildlife habitat on one hand, and the creation of habitat on the other hand. For instance, CM 1 will destroy over one contiguous mile of area containing channel margin riparian habitat on the Sacramento River where the new intakes will be located. (BDCP, Table 4-2 (listing 6,360 linear feet for intakes and transition walls).) This destruction of riparian habitat is arguably more than has ever occurred under an individual project. | 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. |
| 1562 | 15 | Under Conservation Measure 6, 20 miles of channel margin habitat will be created within the first 30 years under the Plan. (BDCP, Tables 3-4, 6-2.) We understand from our Stone Lakes Technical Working Group meetings, however, that the focus of CM 6 will be on the west side of the river, away from the area of impact. We would like to see replacement riparian habitat also occur on the east side of the river. | The commenter describes their preference for channel margin enhancement activities to occur on both the west and east side of the river so that restoration also occurs in closer proximity to the area of impact. The actual location of channel margin enhancement will be determined in coordination with the fish and wildlife agencies and will need to take into consideration several factors, one of which would be proximity to the area of effect. |

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| | | | As noted in response to comment 1562-1, the BDCP (Alternative 4), is no longer the preferred alternative. The preferred alternative is Alternative 4A, which includes up to 4.6 levee miles of channel margin enhancement. |
| 1562 | 16 | <p>Hundreds of acres of riparian habitat will be directly destroyed by CM 1 construction (BDCP, Appendix 5J, Table 5.J-6.) Yet the 5,000 acres of "Riparian Natural Community Restoration" promised to be restored under CM 7 is provided over the course of 50 years. (BDCP, Tables 3-4, 6-2.) It does not appear that there is any connection between the areas of impact and where the restoration will occur. From what we have heard, we are concerned that much of this restoration will occur in areas far from the initial impact.</p> <p>Incredibly, the BDCP and the EIR/EIS does not provide a detailed accounting of habitat loss by type (species), by year or an accounting of the type and quantity by year of fully functioning habitat restoration or mitigation, so a detailed analysis to quantify this shortfall is not possible. Though BDCP Table 6-2 suggests an implementation schedule, there does not appear to be any enforceable means to ensure this schedule is followed. Moreover, there is no indication that the pace of habitat loss will be matched by habitat creation. It appears that the pace of the amount of habitat lost to conveyance construction and aquatic habitat creation could occur at a much faster pace than the restoration and functional development of habitat restoration CMs. Since the purpose of the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) is to conserve and protect the covered species, the project should not be allowed to result in a net negative quantity and quality of habitat for the listed/covered species at any point in time during the BDCP project.</p> <p>This problem applies to specific covered species, such as the greater sandhill crane. Here, the BDCP plans to "take" greater sandhill cranes each year (among other birds), for instance, with the new power transmission lines due to bird strikes. (BDCP, Appendix 5.J.D, Table 2 (estimating 138 deaths per year, which is estimated to be reduced to 48 deaths per year if the powerlines are marked according to a Colorado study indicating that a 66% reduction in bird strikes could be attained through marking).) A great deal of existing greater sandhill crane habitat is also proposed to be converted to other uses or otherwise affected by the BDCP actions. (BDCP, Table 5.6-10.) Yet, that take is not adequately minimized and mitigated, and is instead barely replaced. (16 U.S.C. [Section] 1539, subd. (a)(2)(B); Fish & G. Code, [Section] 2052.1.) For the impact of the taking to be minimized and mitigated (16 U.S.C. [Section] 1539, subd. (a)(2)(B)(iii)), new habitat must be provided to replace the lost habitat in a timely manner. BDCP Chapter 6 does not explain when and how these measures will be carried out.</p> | 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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment under the BDCP (Alternative 4) were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/SDEIS, which largely address the concerns raised in this comment. The temporal loss of riparian habitat is addressed through AMM17 Swainson's Hawk in Appendix 3.C of the BDCP. The timing of conservation of habitat for the Greater Sandhill Crane is addressed in AMM20 Greater Sandhill Crane, which requires conservation lands for the species to be in place at least one season prior to impacts. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17. |
| 1562 | 17 | <p>The Level of Detail of the HCP is Inadequate for Issuance of Take Authority.</p> <p>The level of measurable commitment to recovery of the covered species provided in the BDCP is inadequate for issuance of 50-year take authority. While it may be appropriate to conduct "programmatic" CEQA and NEPA review, the BDCP itself must contain sufficient detail in order to justify issuance of take authority for the covered activities. Yet, the discussion of the other CMs is very sketchy; the functionality and location of new habitat and other critical details of the Other Stressor CMs has not yet been defined. Moreover, the BDCP's own analysis indicates that acquisition of adequate lands to carry out the CMs may be difficult, and that many of the lands needed for tidal habitat are currently being</p> | The comment does not raise any issues regarding the analysis in the EIR/EIS. Please see Master Response 5 for information regarding the BDCP. 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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS. |

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| | | used for terrestrial species conservation measures. [Footnote 6: See Black & Veatch Corporation, Delta Habitat Conservation & Conveyance Program Creation of Up to 100,000 Acres of Intertidal and Associated Subtidal Habitat: Feasibility Level Assessment Based on Elevation & Land Acquisition Considerations Technical Memorandum. Prepared for California Department of Water Resources, DHCCP-Environmental. July 2012. (See p. 16 and Table E-5 and E-6.)) Even CM 1, as described below, is proposed to be served by a power transmission line whose design and location has not yet been determined. This level of detail is inadequate for issuance of take coverage. (See 50 CFR 17.22(b)(1), 17.32(b)(1), or 222.22; see also Habitat Conservation Planning and Incidental Take Permit Processing Handbook (1996) ("HCP Handbook"), p. 3-10.) | |
| 1562 | 18 | <p>The Plan Area is Not Appropriate Given the Location and Impacts of the Project.</p> <p>Friends of Stone Lakes National Wildlife Refuge (FSL) is not satisfied with progress made on adjustments to the plan area to ensure that impacts on the Refuge are avoided or mitigated as required by law. For instance, we have repeatedly requested that mitigation lands for impacts on the Refuge be available for placement to the east of the Refuge, toward Elk Grove. Such an expansion would be consistent with federal agency guidance on the appropriate plan area. "The HCP plan area might also include areas necessary for the mitigation. The exception to this general rule may be where the mitigation consists of reserves apart from the area in which incidental take is authorized." (HCP Handbook, p. 3-12.)</p> | Regarding the commenter's concern on the sufficiency of the BDCP Plan Area to meet habitat protection and restoration measures described in the BDCP please see Master Response 5. The proposed conservation under the BDCP is designed to meet the protection and restoration needs of natural communities and covered species to offset the effects of the plan and to contribute to recovery of the species, which includes landscape level planning to insure linkages are created and maintained within the Plan Area. The Stone Lakes National Wildlife Refuge would play a key role in implementing the conservation strategy under the BDCP. Alternative 4A includes substantially less restoration and protection; however, it does include several actions to protect and restore habitat around the Stone Lakes National Wildlife Refuge. |
| 1562 | 19 | The plan area must include the transmission lines that must be built to serve electricity to the project. BDCP EIR/EIS, Figure 3-29 clearly shows conceptual transmission line alignment extends outside of BDCP boundaries. This area has instead been designated as an "Area of Additional Analysis" rather than included in the Plan. Issuance of take authority outside the Plan area is not possible. According to the HCP Handbook, "HCP boundaries should encompass all areas within the applicant's project, land use area, or jurisdiction within which any permit or planned activities likely to result in incidental take are expected to occur." (HCP Handbook, p. 3-11.) The BDCP estimates the take of greater sandhill crane that would occur under the BDCP from the new transmission lines, yet a significant part of the area where take would occur is outside the plan area. (BDCP, Appendix 5.J.C, Figure 2.) The Plan area should thus be expanded to include the entire BDCP project, including the transmission lines. Moreover, the analysis of take and other environmental impacts of the transmission lines must occur now, within these documents, and cannot be deferred to some future date as the transmission lines are necessary to the construction and operation of CM 1 and do not have independent utility. | <p>Commenter is correct that the BDCP Plan Area would have to include the transmission line areas in order to secure incidental take authorization for those areas. The BDCP proposed plan area was modified following release of the draft BDCP to include the transmission line areas.</p> <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which address potential impacts on sandhill cranes associated with transmission line construction. The analysis of take of greater sandhill crane and potential impacts on other wildlife species from the construction of transmission lines has been analyzed in the RDEIR/EIS under individual species for each potential transmission line alignment presented under each alternative. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 20 | <p>Compatibility with Other HCPs:</p> <p>Friends of Stone Lakes National Wildlife Refuge (FSL) continues to be concerned that the BDCP will interfere with other existing and underway Habitat Conservation Plans (HCPs). Specifically, the BDCP is proposing to restore many of the same lands that are currently part of HCPs being developed by the delta counties, including the South Sacramento HCP. The BDCP is in direct and significant conflict with these other local and regional plans, and will compete for mitigation habitat. Because of this BDCP direct conflict with the HCPs, the BDCP may not be able to achieve its objectives and reduce the overall near- and mid-term conservation of these species because it will be competing with other plans for</p> | Potential conflicts with other HCPs are discussed in EIR/EIS Chapter 13, Land Use, and Chapter 12, Terrestrial Biological Resources, Section 12.3.3.18, Effects on Other Conservation Plans. Please see response to comment 1562-1. |

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| | | appropriate mitigation lands, or conversely, negatively impact the ability or other HCPs to achieve their objectives. | |
| 1562 | 21 | <p>New Power Transmission Lines Will Have a Major Impact on Birds Within and Near the Refuge.</p> <p>The location and design of new transmission line corridors is of great concern to the Friends of Stone Lakes National Wildlife Refuge (FSL). The construction of new powerlines is an incompatible use within the Stone Lakes NWR and placement of new powerlines within and near the Refuge impedes the Refuge's core mission, the protection of vulnerable wildlife species such as the greater sandhill crane. These species are already under threat from widespread habitat degradation.</p> <p>For this reason, a major focus of our time in the Stone Lakes Technical Working Group has been on the effects of the proposed transmission lines serving power to the new intakes and associated facilities. (See Exhibit A, item 5. [ATT 1]) The BDCP and the EIR/EIS fails the basic test of reasonable good faith disclosure and analysis in several major respects in the discussion of the provision of electricity to construction and operation of the BDCP conveyance facilities. The EIR/EIS must properly describe this aspect of the project and all associated impacts of the necessary utilities that need to be constructed to serve the BDCP conveyance facilities under CM 1.</p> | <p>The commenter states that the EIR/EIS fails the basic test of reasonable good faith disclosure and analysis in several major respects in the discussion of the provision of electricity to construction and operation of the project conveyance facilities. The EIR/EIS has analyzed a potential transmission line footprint associated with each alternative and disclosed the potential impacts of the construction of new and temporary transmission lines on natural communities and sensitive species (See EIR/EIS Chapter 12, Terrestrial Biological Resources). Proposed locations of electrical transmission lines are shown in Figure 3-25. As described in response to comment 1562-84, the final transmission line design will be determined in coordination with the wildlife agencies and wildlife agency-approved, qualified biologist familiar with crane biology. In addition, during the final powerline design process, undergrounding of all new permanent powerlines will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. The EIR/EIS has evaluated potential impacts to the level of detail of engineering design that is available at this point and fully complies with the requirements of CEQA and NEPA.</p> <p>Please see RDEIR/SDEIS Appendix 3B for more information regarding Environmental Commitments that pertain to transmission line design and alignment guidelines. Please see Mater Response 22 regarding the Environmental Commitments.</p> |
| 1562 | 22 | <p>The power demands of the project are apparently enormous, purportedly especially during the construction phase, and a 230 kV transmission line is programmed to bisect the Refuge along Twin Cities Road and extend east to Highway 99. In all, 20 miles of permanent new transmission lines and 38 miles of temporary lines are proposed to be constructed. [Footnote 7: While Table 1 refers to the transmission lines as within the Plan Area, (BDCP, Appendix 5.J.C, page 4), part of the permanent transmission lines would be in what is referred to as an "area of additional study" (see Exhibit I [ATT 9]).] (BDCP, Appendix 5.J.C, Table 1.)</p> <p>In our Stone Lakes Technical Working Group, the possibility of obtaining power from three different and separate power providers (PG&E, SMUD, and WAPA) was discussed, but the BDCP does not disclose which organization or organizations will be the power supply provider for the project. There is no discussion of the capabilities of each provider to supply the power and no discussion of where each power provider's facilities that might be utilized are in relation to the Plan area so that the potential corridors for each power provider can be identified and alternative analyzed and compared. To the knowledge of Friends of Stone Lakes National Wildlife Refuge (FSL), DWR initiated discussions with the potential power providers only after the release of the Draft EIR/EIS. This renders the overall analysis of the impacts of the construction of the transmission lines flawed in that the alignment for the powerlines as set forth in the EIR/EIS is entirely speculative.</p> <p>Similarly, the construction assumptions in the EIR/EIS for the provision of the power supply is called into question since it is unclear who will be constructing the powerlines and where the alignment will be. The EIR/EIS purports to be "project level" environmental analysis for the construction and operation of the conveyance facilities, but the lack of a specific location, design or commitment from a power provider at this late stage in the process results in a conjectural description of the location of the transmission lines</p> | <p>The comment addresses the fact that there are design-level details that are not addressed in the EIS/EIR. 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. The scope of the impacts analysis has been developed to be broad enough to cover all anticipated design elements, including the transmission lines. At the conclusion of the design phase, DWR will determine if additional environmental review is required based on the circumstances.</p> <p>DWR has engaged PG&E, SMUD and WAPA to conduct System Impact Studies (SIS) to assess each utility's ability to potentially provide electrical transmission grid interconnection and service to deliver power to the project for both construction and operational loads. Because there are several project locations spread over more than 40 miles that would require power, interconnection to more than one utility is possible except for the limitations noted above. Several interconnection options have been studied and preliminary SIS results indicate that some electrical upgrades would be needed primarily to accommodate the large load during construction. Please see Section 21.1.4 in Chapter 21, Energy, of the Final EIR/EIS for more information.</p> <p>Please see Master Response 2 for further information regarding the level of detail provided in the EIR/EIS analysis.</p> |

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| | | potentially supplying power to the project. Even if the EIR/EIS was intended to be programmatic in nature, the EIR/EIS does not specify the process for additional environmental review based upon which of the three power providers is ultimately determined to be able to serve the facilities. If there is to be additional environmental review of the construction operations based upon the identity of the power provider, the scope and nature of that review must be disclosed. | |
| 1562 | 23 | The project description for analytical purposes is flawed because it fails to describe the location of the transmission lines. (See CEQA Guidelines, [Section] 15124, subds. (a)-(c).) While the area to the east of the Refuge is generally referenced as the location where the transmission lines will be placed, the exact location has not been determined. (See BDCP, Appendix 5.J.C, Figure 2; see also BDCP, Appendix 5.J, Table 5.J-6, 5.J.-7, 5.J.-8, note 20 (noting "final alignment is unknown").) Moreover, the provision of power for construction is not even included as a covered activity. (BDCP, Table 4-3.) In addition to not disclosing the provider, the subsequent approvals necessary for the eventual construction of the new lines are not listed in the Executive Summary of the EIR. (See EIR/EIS, p. ES-6, Table ES-1 (listing Lead, Cooperating, Responsible and Trustee agencies).) Project-level detail clearly cannot be provided when the location and operator of this essential aspect of the project is not known. | Please see response to comment 1562-21 and 22. Three electric utilities could potentially provide transmission interconnection and service to support the supply of power to the project: Sacramento Municipal Utility District (SMUD), Pacific Gas and Electric Company (PG&E) (under the CAISO BA), and Western. DWR will conduct a System Impact Study which will evaluate the electrical transmission and power needed for the conveyance facilities. The study will be completed in time to procure the necessary power to support construction and operation of the facilities. Proposed locations of electrical transmission lines are shown in Figure 3-25. |
| 1562 | 24 | The failure to adequately describe the transmission line portion of the project also constitutes impermissible piecemealing. Piecemealing results in a curtailed project description, which results in the EIR misstating the cumulative impacts "by separately focusing on isolated parts of the whole." (San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 729-30.) Project descriptions must include integral parts of the project; otherwise their omission would result in important ramifications remaining hidden from public review. (Santiago Water District v. County of Orange (1981) 118 Cal.App.3d 818, 830.) Simply describing an undefined transmission line within a general area that is likely to change later is inadequate. | Please see response to comment 1562-21 and 22. Please note that the Cumulative Impact Analyses that was written for the 2013 Public Draft EIR/EIS has been revised to include the impacts associated with the new proposed project alternatives and also updates past analyses. Environmental Commitments are included in the project to minimize effects to the Delta and its inhabitants and mitigate for loss of habitat to the ecosystem and its species. For more information please see Section 5 Revisions to Cumulative Impact Analyses, Appendix A, Chapter 11, Fish and Aquatic Resources, Appendix A, Chapter 12, Terrestrial Biological Resources, and Appendix 3B Environmental Commitments, AMMs, and CMs, of the RDEIR/SDEIS. Please see RDEIR/SDEIS Appendix 3B for more information regarding Environmental Commitments that pertain to transmission line design and alignment guidelines. |
| 1562 | 25 | Even assuming that it could be permissible to analyze a conjectural location for the transmission lines, the analysis of effects and environmental impacts -- especially with respect to bird strike deaths -- is incomplete and flawed. The area where the transmission lines will be placed is identified as crane foraging habitat. (Exhibit I, GSHC Area of Additional Analysis for Transmission Line Study Area, 2012 [ATT 9].) Friends of Stone Lakes National Wildlife Refuge (FSL) submitted technical comments on BDCP, Appendix 5.J.C on July 17, 2013. FSL has the following ongoing concerns regarding the conclusions of the Effects Analysis with respect to greater sandhill crane: * Bird strike numbers are artificially low; * Other birds besides greater sandhill cranes should have been analyzed; * The effectiveness of marking transmission lines is likely overstated and lacks a credible basis; * The report fails to address how other project impacts, such as | Please see response to comment 1562-21 and 22. The EIR/EIS adequately analyzes the transmission line portion of the project. The EIR/EIS has analyzed a potential transmission line footprint associated with each alternative and disclosed the potential impacts of the construction of new and temporary transmission lines on natural communities and sensitive species (See EIR/EIS Chapter 12, Terrestrial Biological Resources). The BDCP appendix noted by the commenter contains a thorough analysis of birdstrike risk for the proposed transmission line alignment for the BDCP. This analysis includes a vulnerability analysis for eleven avian species, including the greater sandhill crane. The analysis was based on characteristics such as maneuverability, flight altitude, daily and seasonal movements, and flocking behavior. The Lead Agencies disagree that the birdstrike numbers for greater sandhill crane are artificially low. The numbers used an estimated number of line crossings per day based on the daily patterns of wintering cranes in the Delta. These were then applied to "collision risk index values" that were based on the size of roost sites used by the subspecies. The full methods of the analysis are described in Section 3.0 Greater Sandhill Crane in BDCP appendix 5.J.C.. The commenter correctly states that the BDCP appendix 5.J.C. Analysis of Potential Birdstrike does not include the effects of other project impacts such as light/sound/traffic/vibration/habitat fragmentation and |

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| | | <p>light/sound/vibration/traffic and habitat fragmentation, could exacerbate the potential for bird strike deaths; and</p> <p>* Only bird diverters are examined in this draft as a means to reduce bird mortality despite the probable feasibility of undergrounding at least the permanent transmission lines.</p> <p>The minimization and mitigation for transmission line bird strike deaths is inadequate. One of the fundamental purposes of conducting an environmental review of a project is to identify potential mitigation measures which lessen the impacts of the project. (Pub. Resources Code, [Section] 21002.1, subd. (b).) There is no dispute over the fact that the introduction of a large new transmission line through the heart of the Stone Lakes NWR and adjacent habitat areas will result in additional bird strikes, and particularly the loss of greater sandhill cranes. (BDCP, Appendix 5.J.C, Table 2.) Stone Lakes' population of greater sandhill cranes is smaller, more recently established, and more vulnerable to disruptive impacts. We also believe that other birds besides cranes will die as a result of the new transmission lines.</p> | <p>the correlation between these effects and increased birdstrike. These other project impacts are addressed in a separate BDCP appendix (see Appendix 5.J, Attachment 5J.D, Indirect Effects of the Construction of the BDCP Conveyance Facility on Sandhill Crane). The potential effects of these construction-related impacts on birdstrike cannot be quantified. Language has been added to the FEIR/FEIS to note that the potential for birdstrikes could be exacerbated by construction-related effects, especially in low-visibility conditions. However, these effects would not be expected to substantially increase the potential for birdstrike over noise from activities that may occur under existing conditions such as hunting, barking dogs, and other baseline occurrences in the plan area</p> <p>The commenter states that undergrounding the permanent transmission lines is probably feasible and yet the BDCP appendix only examines bird diverters as mitigation. The appendix does include an example of how bird diverters would be implemented as mitigation (i.e. number of miles of line that would need to be fitted with bird diverters to mitigate for a certain number of crane strikes). Please see Master Response 17 regarding the Sandhill Crane. Other measures include reducing the number of existing lines in risk zones to offset placement of new lines in risk zones and prioritizing elimination or reduction of existing lines and avoidance of new lines in the highest risk zones. These measures would also minimize the risk of bird strike for other avian species and are described in detail under the response to comment 1562-84.</p> <p>The final transmission line design will be determined in coordination with the wildlife agencies and wildlife agency-approved, qualified biologist familiar with crane biology. In addition, during the final powerline design process, undergrounding of all new permanent powerlines will be comprehensively evaluated for feasibility with respect to cost, operational risks, bird strike risks, and other relevant factors. The EIR/EIS has evaluated potential impacts to the level of detail of engineering design that is available at this point, and fully complies with the requirements of CEQA and NEPA.</p> |
| 1562 | 26 | <p>The EIR/EIS relies wholly upon the implementation of Avoidance and Mitigation Measure (AMM) 20 in which a powerline plan that results in a no net loss in the Plan Area is to be developed in the future. There is no assurance that such a plan can be developed, but more importantly, there is the very real possibility that the greater loss of greater sandhill cranes within the Stone Lakes National Wildlife Refuge (NWR) area might be "offset" by eliminating hazards to greater sandhill cranes somewhere else in the Plan Area. In meetings of the Stone Lakes Technical Working Group, there were modifications to the AMM to address this issue. We do not know if these modifications will be incorporated into the BDCP.</p> <p>Additionally, discussions around how to verify that there is no net loss have been wholly unsatisfactory. There is no agreement, for instance, to include remote monitoring or other information gathering devices on the new powerlines. Rather, the BDCP apparently intends to rely on bird surveys conducted every 5 years to determine whether there has been a reduction in numbers of greater sandhill cranes. (See BDCP, Appendix 5.J.C, p. 17.) By the time a population level effect is found in bird counts, it will be too late. Such a lackadaisical approach to monitoring effectiveness of the AMM does not meet minimum standards under the California Endangered Species Act ("CESA") in particular, since the greater sandhill crane is a state-listed species. At the very least, we suggest that no net loss be assessed on an annual basis during CM 1 construction.</p> <p>We continue to be concerned that the feasibility of undergrounding transmission lines has not been adequately examined, and the documents continue to assume that there will be no undergrounding. [Footnote 8: See, e.g., BDCP Appendix 3C-Construction Assumptions for Power Supply, p. 3C- 52, Table 3C-6.] Our discussions of revisions to</p> | <p>See Response to Comment 1562-25. As part of AMM20, Greater Sandhill Crane, DWR has committed to no take, as defined by Section 86 of the California Fish and Game Code, of greater sandhill crane associated with new facilities. Please see Master Response 17 regarding the Sandhill Crane.</p> <p>Also, DWR has committed to the following: During the final powerline design process, undergrounding of all new permanent powerlines north of Glannvale Tract will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. DWR will continue to analyze the feasibility of undergrounding powerlines.</p> <p>Please note that the preferred alternative is now Alternative 4A and no longer includes an HCP. For more information please see Appendix 3B Environmental Commitments of the RDEIR/SDEIS.</p> |

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| | | AMM 30 only would require the "evaluation" of undergrounding of powerlines to be considered as part of any such plan. [Footnote 9: See Appendix 3C, p. 3.C-70 (current AMM language).] There is little dispute that the most effective way to prevent birds strikes from occurring with the development of new transmission line facilities is to eliminate the conflict -- i.e., underground the lines. The BDCP and EIR/EIS must comprehensively analyze the environmental efficacy of undergrounding new powerlines within the Stone Lakes NWR to provide the highest level of protection possible to the biological resources utilizing the Refuge. Without such an analysis, it is not possible to determine if undergrounding of powerlines is a feasible mitigation measure. | |
| 1562 | 27 | DWR has prepared a "white paper" regarding undergrounding to "provide general information about the technical merits and challenges associated with placing high voltage transmission lines underground, compared with installing overhead lines." (DWR, Undergrounding High Voltage Transmission Lines, May 2014, Rev. 2.) In the context of the Stone Lakes Technical Working Group, Friends of Stone Lakes National Wildlife Refuge (FSL) and the wildlife agencies have requested information regarding the feasibility of undergrounding the power lines serving the BDCP. Such analysis is necessary, for instance, to assess under CEQA whether feasible mitigation is available to avoid or reduce the significant effects on greater sandhill crane and other birds. (CEQA Guidelines, [Section] 15126.4.) Such analysis is also required in the context of the Endangered Species Act (ESA), in terms of "minimize[ing] and mitigate[ing] the impacts of such taking" to the "maximum extent practicable." (16 U.S.C., [Section] 1539, subd. (a)(2)(B)(ii).) DWR's survey of undergrounding includes no information relevant to such an inquiry. | See Response to Comment 1562-25. As part of AMM20, Greater Sandhill Crane, 3.C.2.20.1.2 Required Measures, DWR has committed to the following: During the final powerline design process, undergrounding of all new permanent powerlines north of Glannvale Tract will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. DWR will continue to analyze the feasibility of undergrounding powerlines. For more information please see Appendix 3B Environmental Commitments of the RDEIR/SDEIS. |
| 1562 | 28 | The EIR/EIS fails to analyze the growth inducing effects of constructing transmission lines to construct and operate CM 1. Pumps at intakes and at tunnel head works will require new transmission lines. Any new power generation facilities that are brought on line to supply the power demands of the BDCP are growth inducing. The impacts of bringing the additional power generation capacity to supply BDCP power requirements should have also been disclosed as an impact of the project. | As stated in Chapter 30 (Growth Inducement and Other Indirect Effects) and section 4.4.12 of the RDEIR/SDEIS, neither the BDCP (Alternative 4) nor the proposed project (Alternative 4A) would result in a permanent increase in population. The increase in construction workers anticipated during the construction period could increase demands for services during this period; however, the increase in worker population would be minimal and spread out over the large multi-county study area. This additional population would constitute a minor increase in the total 2020 projected regional population of 4.6 million. Construction of new transmission lines is not anticipated to significantly induce growth. Transmission lines for the proposed project will likely be dedicated to the proposed project and those used for construction will be temporary. Furthermore, generation of power for the proposed project would have limited potential to increase growth because to do so, the transmission lines would need to occur near roads and in areas that currently have no access to electricity. No growth inducing effects from project transmission lines would occur. |
| 1562 | 29 | There are already a significant number of transmission lines within and near the Refuge. The addition of more large above ground transmission lines will cause higher bird mortality will compromise the ability of the Refuge to complete its boundaries by introducing new wildlife risks into the area. Unfortunately, a good faith analysis of means to reduce impacts associated with these new structures has not been adequately undertaken. In particular, the analysis of the feasibility of undergrounding all or part of the needed transmission lines has still not been undertaken. | See Response to Comment 1562-25. As part of AMM20, Greater Sandhill Crane, 3.C.2.20.1.2 Required Measures, DWR has committed to the following: During the final powerline design process, undergrounding of all new permanent powerlines north of Glannvale Tract will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. DWR will continue to analyze the feasibility of undergrounding powerlines. For more information please see Appendix 3B Environmental Commitments of the RDEIR/SDEIS. |
| 1562 | 30 | Project Implementation and Mitigation Monitoring are Not Adequately Defined. Even the best designed Avoidance and Mitigation Measures (AMMs) and more rigorous | As described in Appendix 3B, the intention of identifying environmental commitments and other best practices in the manner it has been done in the EIR/EIS was to assure the reader that the Lead Agencies will not subsequently determine that such measures are infeasible and in fact assume full responsibility for their |

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| | | mitigation measures are effective only if there is assurance that they will be fully implemented and enforced. Mitigation obligations, which are adopted and then ignored, are not mitigation obligations at all. The Plan does not provide assurances that the mitigation obligations, whether AMMs or in the EIR/EIS, are funded or will be implemented. | enforcement. All of the environmental commitments, mitigation measures, and avoidance and minimization measures will be included in the Mitigation Monitoring and Reporting Program (MMRP), which provides details about how measures will be implemented, monitored and reported. See Master Response 22 for additional information regarding the ECs, AMMs, and mitigation measures. |
| 1562 | 31 | While it is permissible to incorporate mitigation obligations into the project in lieu of requiring the obligations as mitigation measures in the environmental documents, as the BDCP has done through the development of the Avoidance and Mitigation Measures (AMMs), Friends of Stone Lakes National Wildlife Refuge (FSL) is very concerned that through this process, the mitigation obligations such as greater sandhill crane habitat establishment prior to initiation of construction will get less attention than they should because of the multiplicity of obligations that the Implementation Office is required to perform, and will get "lost" in the scale of the overall habitat obligations for the BDCP Plan Area in its entirety. In this respect, because the EIR/EIS is intended to be "project level" with respect to the conveyance facilities, FSL believes a detailed and specific mitigation monitoring plan for the obligations associated with the actual construction of the conveyance facilities, with specificity as to which agency will be responsible for oversight of each mitigation obligation, must be developed to show how those obligations will be implemented, rather than relying upon the operations of the Implementation Office generally. | See response to comment 1562-30. The commenter expresses concern that the BDCP Implementation Office may not adhere to its obligations under the BDCP and that specific mitigation and monitoring plans for offsetting conveyance construction should be developed. See Master Response 22 for additional information regarding the ECs, AMMs, and mitigation measures. Please refer to Master Response 5 for additional information regarding governance. |
| 1562 | 32 | Mitigation obligations which cannot be implemented because of lack of funding are not mitigation measures at all. CM 2-22 depends on future funding authorizations by the state and federal governments as well as General Obligation bond funding from the state. The sources of the funding and the costs to mitigate the direct impacts to the Stone Lakes National Wildlife Refuge (NWR) should be specifically delineated in the cost projections for CM 1 and the AMMs in CM 2-22 within Chapter 8 of the BDCP. The Plan and the EIR/EIS must then identify the sources of secure funding to pay for all of the mitigation obligations relating to the Plan, whether or not they are part of CM 1. | See response to comment 1562-30. Please see Master Response 5 regarding the adequacy of the BDCP funding strategy. The regulatory standards of the federal ESA and state NCCP Act do not require that all costs be linked to a specific funding source, or that that funding source must be guaranteed. The likely funding sources for all conservation measures are identified in Chapter 8, Draft BDCP. Please see Tables 8-38 through 8-40, Draft BDCP, regarding the funding sources most likely to fund particular conservation measures. Any mitigation associated with CM1, including mitigation on the Stone Lakes National Wildlife Refuge, would be paid for by the participating state and federal water contractors, not by state or federal bonds. Please refer to Master Response 5. |
| 1562 | 33 | The implementation structure as described in Chapter 7 of the BDCP and the draft Implementing Agreement in general does not provide for adequate public oversight of the overall implementation process by interested parties, such as Friends of Stone Lakes National Wildlife Refuge (FSL). The only place where a group such as FSL could participate in the oversight process is through the Stakeholder Council, where there are seats for only three conservation groups for the entirety of the Plan Area. The process for public oversight of implementation must be enhanced so that directly interested parties, such as FSL, are not relegated to "observer" status, and can participate in the oversight and active implementation of mitigation measures directly impacting the Stone Lakes National Wildlife Refuge. | 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). The comment does not raise any issues regarding the analysis in the EIR/EIS. Please see response to comment 1562-1 and Master Response 5 for additional information on the BDCP. |
| 1562 | 34 | Traffic Impacts on Hood Franklin, Lambert and Twin Cities Road are Not Adequately Addressed. Projected Traffic Increases on Key Refuge Roads: Appendix 19A Attachment B of the EIR/EIS presents graphs depicting the traffic increases on various road segments due to construction of the CM 1. The graphs show modeled | The lead agencies acknowledge the importance of Delta roads for agricultural access, local residents, and the Stone Lakes National Wildlife Refuge for their transportation needs. Mitigation Measure TRANS-1c requires the project proponents 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 in Chapter 19, Transportation. The project proponents acknowledge that construction truck traffic may degrade the physical condition of |

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| | | <p>hourly roadway volumes and the level of service threshold ("LOS" C) for an entire day during the peak month of project generated traffic. The volume of traffic was developed from data on construction phasing and trip generation associated with various construction activities in Appendices 22A and B of the document.</p> <p>The graphs in Appendix 19B and the data in Table 19-5 for Alternative 4 indicate that traffic will increase during the peak month of construction on roads through or adjacent the Refuge boundary as follows:</p> <p>Hood Franklin Rd, from I-5 to River Rd -- 900 trips/hr</p> <p>Lambert Rd, from River Rd to Franklin Blvd -- 950 trips/hr</p> <p>Twin Cities Rd, from I-5 to River Rd -- 180 to 200 trips/hr</p> <p>Traffic on River Road near the Refuge between Scribner Road and Lambert Road will increase from between 750 to 900 trips per hour depending on the segment. These trip increases are the increment above baseline associated only with the project. Construction related traffic along these four segments will not exceed LOS C.</p> <p>All of these graphs are flat for the duration of the day with no peak hour highs, meaning that almost all of the trips will be generated by trucks, and there will be minimal commute hour traffic by workers. It is not clear from the analysis what kinds of trucks will be using these roads, but the likelihood is that the large majority of them will be semi-trailers hauling material.</p> <p>The truck traffic volumes disclosed in the EIS/EIR are a significant concern to Friends of Stone Lakes National Wildlife Refuge (FSL); 900 trips per hour is an enormous number of trucks under any scenario. This rate amounts to 15 trucks per minute all day long or one truck on average every 4 seconds. It is a level of truck traffic along two lane rural roads comparable to the volume of trucks using four-lanes on Interstate 5.</p> <p>The traffic analysis does acknowledge that the assumptions used in the traffic study were conservative -- they represent a worst case scenario. Nevertheless, the purpose and intent of the EIS/EIR process is to mitigate for the potential impact. And even if the peak level of trips turns out to be half of this conservative estimate, it is still a lot of trucks.</p> <p>The traffic impact analysis associated for Alternative 4 focuses on the road segments where traffic would exceed LOS C. (EIS/EIR, p. 19-164.) Because project traffic would not cause any of the roadways in and around the refuge to exceed LOS C, the discussion of impacts and mitigation in this section does not reference any of these roadway segments, nor do Mitigation Measures TRANS 1a to 1c. It is not clear to what extent Mitigation Measure TRANS 1a, which requires Site-Specific Construction Traffic Management Plans, would include non-LOS C impacted roadways.</p> <p>The analysis of traffic impacts of Alternative 4 is inadequate in several ways. By focusing on traffic with respect to LOS, as is typical of traffic studies, the analysis fails to adequately discuss the nature and duration of truck traffic impacts. LOS is but one metric to analyze traffic impacts. Under SB 743 (Steinberg), the Office of Planning and Research is now in the process of promulgating regulations to provide guidance on non- LOS metrics for assessing traffic impacts within transit priority areas. (Pub. Resources Code,</p> | <p>the roadway segments as discussed in the RDEIR/SDEIS ((see page 19-133). The RDEIR/SDEIS identifies mitigation measures to reduce these impacts The lead agencies also acknowledge concerns about transportation impacts on Delta roadways. Table 19-26 in Chapter 19, Transportation, of the RDEIR/SDEIS identifies roadway segments that are deficient. Mitigation Measures TRANS-2a, b, and c seek to eliminate or minimize traffic on those segments or to improve the condition of those pavement sections if use by construction traffic cannot be avoided. Mitigation Measure TRANS-2c also includes remediation of roads to conditions prior to project construction. (See also RDEIR/SDEIS, Impact TRANS-2.)</p> <p>Mitigation Measure TRANS-1b specifies limiting construction activity to hours with more capacity to avoid operational deficiencies on affected roadways. 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 in Chapter 19, Transportation.</p> <p>Mitigation Measure TRANS-1a requires that a site-specific construction TMP will be created for construction locations with the potential to significantly affect roadway segments or other transportation corridors, which includes non-LOS C impacted roadways.</p> <p>Regarding the commenter's concern over the analysis in Chapter 19 of the EIR/EIS not including the mix of construction traffic by road and by month, the analysis in Chapter 19 assumes that construction will occur over a period of 14 years and that all construction truck and employee trips are assigned to the roadway network for each analysis hour (a worst-case scenario). There is no breakdown by month because the assumption is that construction traffic would not be variable across the 14-year period (i.e., operating at a worst-case scenario level).</p> <p>Appendix 22B outlines the construction equipment assumptions, including the number and type of construction vehicles needed and approximately when they would be utilized.</p> |

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| | | <p>[Section] 21099, subd. (b)(1).) Non-LOS metrics for traffic impacts analysis may also be applicable outside of transit priority areas and should have been considered here.</p> <p>Important information needed to assess traffic impacts is missing from the analysis. The mix of construction traffic, including the percentage of heavy trucks, is not indicated for each roadway, nor is the number of months that traffic will be at or near the peak -- and it is not possible to glean this information from the data in the EIR/EIS. This is essential information, and the EIS must present it in a graphically clear manner and then propose reasonable mitigation for the effects of this level of traffic on the adjacent property, including the Refuge.</p> | |
| 1562 | 35 | <p>Impacts on Wildlife from Truck Traffic are Not Addressed.</p> <p>The Stone Lakes Technical Working Group has discussed the impact of increased truck traffic along Hood Franklin Road and along the rerouted River Road around the intake construction site primarily in terms of disturbance to roosting greater sandhill cranes. (Exhibit B, FSL Unresolved Issues, Item 4 [ATT 2].) This discussion has been in general terms, not in terms of the impacts of 900 truck trips per hour for extended periods of time. There have been some modifications to the Avoidance and Mitigation Measure (AMM) for cranes as a result of this discussion.</p> <p>Notwithstanding this discussion, the analysis of impacts to wildlife of increased truck traffic on roads within and adjacent the Refuge boundary is inadequate and incomplete. Critically, Friends of Stone Lakes National Wildlife Refuge (FSL) has not been able to determine yet from the documents or from the Stone Lakes Technical Working Group basic details about the scale and duration of traffic impacts on the Refuge. The EIS/EIR includes thousands of pages of impact analysis pertaining to listed species but we can find no discussion of the impact to construction truck traffic on non-listed species. The increased truck traffic will enhance the barrier effect of the roads through the refuge and will increase mortality for various species that are particularly active early and late in the day, including snakes, turtles, river otters, coyotes, mink and rabbits. This needs to be evaluated in the EIS/EIR along with consideration of the construction of safe wildlife crossings at key corridors as mitigation.</p> | <p>The commenter asserts that impacts on wildlife from construction truck traffic were not addressed in the Draft EIR/EIS. The Draft EIR/EIS does explain that construction vehicle activity may cause injury or harm to several species addressed, including giant garter snake, common reptiles, California black rail, California clapper rail, American badger, and San Joaquin kit fox. The Draft EIR/EIS did not specifically address the construction related effects of every road within the Plan Area as these would be too numerous and is not necessary to comply with CEQA or NEPA. A discussion will be added to Impact BIO-184, Effects on Habitat and Populations of Common Wildlife and Plants, regarding the effect of construction vehicles on common wildlife. As explained in the EIR/EIS, the impacts on common wildlife species would be less than significant. Please see Impact BIO-184 in the Final EIR/EIS for additional information.</p> |
| 1562 | 36 | <p>The noise impact of the truck traffic is discussed in Chapter 23 of the EIS. Table 23-63 indicates that the noise level for Hood Franklin and Lambert Roads will increase by 16 (51 to 67) and 22 (44 to 66) dBA, respectively. These are among the highest dBA increases along roads anywhere in the Delta project area. Noise levels along State Route 160 will increase by 13 dBA. All of these projected noise impacts exceed the threshold level of significance of 12 dBA. Chapter 23 identifies the number of sensitive receptor parcels impacted by noise in Table 23-62, including 10 natural/recreation zoned parcels, but it is unclear whether these parcels are impacted by truck noise as well as construction site noise and whether any of these parcels include Refuge parcels. The analysis needs to identify the specific natural/recreation areas impacted by noise (as well as the residential parcels, for that matter) and clarify that traffic noise is included in the determination of impacted sensitive receptors.</p> | <p>Table 23-62 of the Final EIR/EIS presents the land use affected by the construction of the tunnel, forebays, and barge unloading facilities, and is based on equipment used for construction, which includes trucks at construction sites; however, the construction traffic results are presented separately in Table 23-63. The number of parcels presented are only those affected by construction equipment noise. The individual parcels affected are not identified by name or parcel number in the EIR/EIS because they do not provide any additional information necessary for making an effects determination when what is needed is just the number of parcels and the relative zoning.</p> |
| 1562 | 37 | <p>Recreational Impacts from Truck Traffic are Not Addressed.</p> <p>The analysis of indirect impacts of construction traffic on recreation is also inadequate</p> | <p>Construction traffic is discussed in Impact REC-2, and also in Chapter 19, Transportation, Section 19.3.3.2. Mitigation Measure TRANS-1a would involve preparation of site-specific construction traffic management plans that would address potential public access routes and provide construction information notification to</p> |

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| | | and incomplete. Impacts of project construction on recreation within the Stone Lakes National Wildlife Refuge are discussed primarily on page 15-255 of the EIS/EIR. This analysis discusses the impact of intake construction and power transmission lines, but fails to discuss the impacts of one truck every four seconds (with attendant significantly increased noise levels) passing in front of the Refuge visitor facilities and the access to Sun River. The high level of truck traffic will significantly interfere with the visitors' experience at the Blue Heron Trails area. Hunter experiences at Sun River will also be impacted. The aesthetics of visiting the refuge will be significantly impacted both visually and audibly. It is also reasonably foreseeable that some truck drivers will turn into the Refuge parking area to use what will be the most convenient restroom facilities on the haul route. This will result in increased safety risks for staff, volunteers, school buses and visitors entering and leaving the Refuge. | local residents and recreation areas/businesses. Additionally, DWR would provide and publicize alternative modes of access to affected recreation areas as an environmental commitment. Where construction impedes access around or near existing recreation areas (e.g., Clifton Court forebay), the project proponents would provide clear pedestrian, bicycle, and vehicular routes around or across construction sites. These would be designed to be safe, pleasant and would integrate with opportunities to view the construction site as an additional area of interest. These physical facilities would be combined with public information, including sidewalk way-finding information that would clearly indicate present and future opportunities for access. Mitigation Measure TRANS-1b would limit construction hours or activities and prohibit construction vehicle trips on congested roadway segments and Mitigation Measure TRANS-1c would implement measures to enhance capacity of congested roadway segments. |
| 1562 | 38 | <p>Transportation Mitigation Measures are Inadequate</p> <p>The proposed mitigation measures are inadequate and incomplete. Mitigation Measures TRANS-1a to 1c all appear to be applicable only where level of service threshold (LOS C) is exceeded. Measure Trans-1a, "Implement Site-Specific Construction Traffic Management Plans" should be modified to make it clear that all impacted road segments are subject to such plans and wording added that requires the opportunity for public input in the plan before it is finalized. More importantly, given the significant levels of heavy truck traffic on lightly travelled rural roads for lengthy periods during construction, additional mitigation is feasible and warranted. A new mitigation measure similar to Mitigation Measure TRANS-1c titled, "Make Good Faith Efforts to Enter into Mitigation Agreements to Improve Safety and Reduce Traffic Impacts on Rural Roadways Projected to Experience Dramatically Increased Truck Traffic for Extended Periods during Project Construction" should be added to the DEIS. An example of an access safety improvement along Lambert Road would be the construction of a safer access point to the Sun River recreation site.</p> | <p>The lead agencies acknowledge the commenter's concerns about the traffic impacts of trucks on lightly used roads. The EIR/EIS analyzes the potential for the volume of traffic on all analyzed roads to increase, and in some cases the existing roadway can accommodate those increases. The mitigation measures have been developed to be applied to road segments where LOS thresholds have been exceeded and performance degrades unacceptably. Mitigation Measure TRANS-1a requires that a site-specific construction TMP will be created for construction locations with the potential to significantly affect roadway segments or other transportation corridors, which includes non-LOS C impacted roadways. TRANS-1a also requires DWR to consult the applicable transportation authorities in developing transportation management plans (TMPs), which include federal, state, and local agencies. TRANS-1a also states the following: "With the goal of minimizing construction traffic related effects on wildlife and in light of local community traffic interests, the BDCP proponents will facilitate discussions in the development of the TMP to address methods for minimizing truck traffic impacts in ways that do not create local traffic hazards" and specifically includes public meetings. TRANS-1a does allow opportunities for Stones Lakes National Wildlife Refuge representatives and other concerned groups to address specific traffic and safety issues in the development of the TMP. Therefore, there are opportunities for the public to provide input to address specific transportation related issues, such as the one raised, during the development of the TMPs.</p> <p>For more information regarding the preferred alternative and its impacts and associated mitigation measures on transportation please see Chapter 19 of the Final EIR/EIS.</p> |
| 1562 | 39 | With respect to noise and visual impacts, NOI-1a, "Employ Noise-Reducing Construction Practices during Construction" should be modified or supplemented to also allow for the construction of noise reducing screening along heavily travelled roadway segments adjacent to sensitive receptors. In particular, fast-growing native screen plantings between Hood Franklin Road and Blue Heron Trails at Refuge Headquarters should be identified as a mitigation measure. | <p>Appendix 3B, Noise Abatement Plan includes the following environmental commitment:</p> <p>A vegetation screen or other type of screen will be installed or planted on the south side of Hood Franklin Road along the length of Stone Lake's National Wildlife Refuge Property to reduce disturbance to Greater Sandhill Cranes and to visitors.</p> <p>Note that vegetation generally does not noticeably reduce noise from traffic, unless it is very dense, or used in combination with a berm or other solid barrier feature. However, vegetation would reduce visual disturbance, which may affect how noise from highway sources is perceived by visitors and wildlife.</p> |
| 1562 | 40 | An additional mitigation measure to provide funding to extend Blue Heron Trails south to provide a recreation opportunity removed from the impacts of traffic along Hood Franklin Road should be included. Such a mitigation measure would help offset the impacts to recreation that will occur during (and potentially after) construction of the project. | <p>Note that impacts from haul traffic to areas adjacent to Hood Franklin Road would be temporary and would cease once construction is complete.</p> <p>Along Hood Franklin Road between SR 160 and I-5, noise levels are predicted to increase from 51 dBA to 66 dBA Leq, a 15 dB increase at a distance of 100 feet from the centerline (see EIR/EIS, Chapter 23). This is a significant impact. However, noise levels decrease with distance from the road. The Blue Heron Trails paved trails are at their closest just over 250 feet from the centerline of Hood Franklin Road and at this</p> |

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| | | | <p>distance the noise level would be approximately 56 dBA Leq. At 400 feet from the centerline noise levels would be approximately 50 dBA Leq. The trails at Blue Heron Trails are between 255 to 769 feet from the Hood Franklin centerline, so some portion of the trail will experience an increase in noise levels above ambient levels.</p> <p>DWR environmental commitments in Appendix 3B include measures to reduce noise levels during daytime hours. DWR and contractors hired to construct any conveyance components of the project will implement a site-specific noise abatement plan to avoid or reduce potential construction-, maintenance-, and operation-related noise impacts. These plans will vary by location. In Section 3B.2.11 of Appendix 3B, Environmental Commitments, AMMs, and CMs, of the Final EIR/EIS, there is a commitment to install a vegetation screen or other type of screen on the south side of Hood Franklin Road along the length of Stone Lake's National Wildlife Refuge Property, which is where Blue Heron Trails is located, to reduce disturbance to wildlife and to visitors. This mitigation measure would help reduce the noise levels that visitors on the trails may experience. Considering that the existing trail would be below the 60 dBA daytime threshold often used for determining noise impacts, which is also used for wildlife because sound above this level may interfere with communication between birds and other wildlife, and considering the proposed mitigation, the relocation of the trail as suggested by commenter is not warranted.</p> |
| 1562 | 41 | <p>Ongoing Concerns Regarding Tunnel Muck.</p> <p>Friends of Stone Lakes National Wildlife Refuge (FSL) continues to have concerns regarding the disposal of tunnel muck in areas currently in use or planned for use as wildlife habitat, such as Zacharias Island, which is within the Refuge boundary. The project will generate a significant volume of tunnel muck (27 million cubic yards estimated from tunneling alone) that will need to be stored, used or disposed. We understand from our Stone Lakes Technical Working Group meetings that some analysis by DWR of muck has occurred indicating that it may be reusable.</p> <p>According to DWR's Reusable Tunnel Material Testing Report (March 2014) ("RTM Report"), the muck may not require handling as hazardous waste. However, "exposure of people, wildlife and plants to conditioned soil has not been fully assessed under unrestricted-use conditions, creating an uncertainty for potential adverse effects." (See Exhibit J, RTM Report, p. 3-23 [ATT 10].) Moreover, initial data developed by DWR from analysis conducted for vegetation suitability indicates that high levels of heavy metals may be found in the muck, making it potentially unsuitable for use in restoration projects or in other places that may expose wildlife and people. (See Exhibit J, RTM Report, pdf pp. 717-721 (Wallace Laboratories discussing planting unsuitability of muck with high levels of zinc).) The RTM Report claims that baseline levels of contaminants are similar to the conditioned soil samples. (RTM Report, p. 3-23.) This fact, however, does not mean that the muck would be suitable for planned restoration uses. (BDCP, Appendix 3.C-26.)</p> <p>It also appears that an insufficient number of samples were taken to come to any conclusions regarding the suitability of tunnel muck from the 35 mile tunnel route for the proposed uses. The RTM report was based on materials testing from only 19 boring locations. (Exhibit J, RTM Report, p. 2-1.) Given the lack of data regarding the composition of the muck that will actually be generated by the project, it is not reasonable for BDCP to assume that all muck will in fact be reusable. FSL is particularly concerned with adverse impacts from the muck that would be placed in the triangular parcels within the Refuge and on Zacharias Island.</p> | <p>The EIR/EIS presents the impacts of reusable tunnel material (RTM) as permanent effects and identifies the locations and potential effects of these areas. It is acknowledged that the preference would be to reuse this material for beneficial uses. Appendix 3B, Environmental Commitments, AMMs and CMs presents an environmental commitment in Section 3B.2.18 for Disposal and Reuse of Spoils, Reusable Tunnel Material (RTM) and Dredged Material. As indicated in the introduction to this appendix, this environmental commitment and all of the other environmental commitments are incorporated into the action alternatives and will be implemented as part of the alternative selected to be implemented. A Mitigation Monitoring and Reporting Program (MMRP) is also provided with this Final EIR/EIS that includes additional details about how these environmental commitments would be implemented and who would implement them. Please refer to Master Response 12 (Reusable Tunnel Material) for more information about treatment, use and other issues related to RTM and Master Response 22 regarding ECs, AMMs, and mitigation 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. Alternative 4A also introduced a slightly different conveyance alignment than Alternative 4. The preferred alternative, 4A, would lie to the east of the Stone Lakes National Wildlife Refuge. No conveyance facilities would lie within the refuge boundaries. Please refer to Chapter 23, Noise, Chapter 15, Recreation, Chapter 12, Terrestrial Biological Resources, Chapter 17, Aesthetics, and Chapter 19, Transportation, for descriptions of potential impacts to these resources. Please also refer to Appendix 3B for more details on environmental commitments regarding reusable tunnel material.</p> |

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| | | The BDCP must account for the fact that the muck may not be reusable. Specifically, Avoidance and Mitigation Measure (AMM) 6 (Disposal and Reuse of Spoils) assumes that the muck will be reusable. (BDCP, Appendix 3.C, section 3.C.2.6.) AMM 6 should be modified to account for the very real possibility that the muck cannot be reused. | |
| 1562 | 42 | We (Friends of Stone Lakes National Wildlife Refuge) suggest that BDCP Chapter 6 (Implementation) include contingency planning for not being able to use tunnel muck for restoration and other plan purposes. The costs of this change in circumstance requiring offsite disposal (potentially at a hazardous waste landfill) should also be accounted for in BDCP Chapter 8 (Funding). Moreover, the documents do not appear to have a clear process (whether in mitigation measures or Avoidance and Mitigation Measures (AMMs)) to track the material properties of the muck to ensure that the muck is managed safely. | See responses to comments 1562-1 and 41. 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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS. |
| 1562 | 43 | <p>Impacts of Dewatering for CM 1 Construction on Groundwater within the Refuge are Not Adequately Disclosed.</p> <p>We (Friends of Stone Lakes National Wildlife Refuge (FSL)) continue to be concerned that the dewatering necessary for: (1) construction of the intakes (particularly the intake near Hood), (2) the forebay, and (3) tunnel construction that may have adverse impacts on the Refuge's water sources as well as trees and vegetation within the Refuge that rely on relatively shallow groundwater. Though it is not entirely clear from the BDCP and EIR/EIS, it appears that significant dewatering activities will be necessary for all three of these activities, which will occur within and near the Refuge. (See EIR/EIS, Figure 7-27 (showing a potential four foot reduction in groundwater levels in the vicinity of the intake near Hood).) We did not have adequate time to resolve this issue at the Stone Lakes Technical Working Group meetings and the EIR/EIS does not describe dewatering activities with particularity.</p> <p>The Refuge uses the Sierra Pacific Cut Waterway as a water source and is concerned that this surface water diversion and other wells within the Refuge will be adversely impacted during, and potentially after, construction. The EIR/EIS states that "locations and construction details for existing production wells in the vicinity of the project are unknown at this time." (EIR/EIS, p. 7- 39.) The Refuge has invested public funds in enhancing habitat that should not be disturbed by a competing conservation plan. A good faith effort at full analysis would include having a detailed project description of the intended actions to construct CM 1, analyzing those impacts, and providing adequate mitigation.</p> <p>Mitigation Measure GW-1 must be modified to include replacement of water supplies for wildlife and habitat uses, in addition to replacement of interrupted domestic and agricultural water supplies. Additionally more specificity is required on the steps that will be taken to avoid localized groundwater impacts in the first place. Moreover, FSL believes the "if feasible" language of this mitigation measure creates ambiguities with respect to what DWR is committed to do. Specifically, there is no enforceable performance standard in the mitigation measure as an alternative to a direct mitigation action.</p> | <p>As described under Section 7.3.3.2 of Chapter 7, Groundwater, of the EIR/EIS, groundwater impacts are related to dewatering activities during construction of the conveyance facilities (Impact GW-1); during operation of the forebay facilities (Impact GW-5); and during operation of tidal, channel margin, and seasonally inundated floodplain restoration sites (Impact GW-6).</p> <p>As described in the EIR/EIS, during construction, dewatering wells would be installed at the intakes, levees, forebays, pumping plants, and tunnel shafts; and along the pipelines near the intakes and forebays. No dewatering would be required along the tunnel alignment. Additionally, the MPTO CER states that "a deep slurry cutoff wall will be installed to enhance future public protection from levee under seepage in accordance with USACE requirements and to reduce the groundwater inflow into deep excavations within the intake facility site pad" (California Department of Water Resources 2015). Slurry cutoff walls would also be installed around the entire intake construction site to reduce dewatering effects on surrounding wells during construction. Dewatering is required for excavation operations at the Intermediate Forebay, notably to build the embankments. Slurry cutoff walls would also be installed along the embankments of the forebay site to reduce dewatering effects on surrounding wells during construction.</p> <p>Following construction, the groundwater elevations would rise towards pre-construction elevations. Mitigation measures have been identified in the EIR/EIS for all of the alternatives. For Alternative 4A, the construction methods in addition to the mitigation measures would reduce the impacts to less than significant.</p> <p>The effects on agricultural activities, which could include agricultural activities on the refuges, are addressed under Agricultural Impact AG-2 (see Chapter 14, Agricultural Resources, in the 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 remain significant and unavoidable and adverse to agricultural resources.</p> <p>As described in Mitigation Measure AG-1 in Chapter 14, Agricultural Resources, in the Final EIR/EIS, adversely affected wells, pipelines, power lines, drainage systems, and other infrastructure that are needed for ongoing agricultural uses and would be adversely affected by project construction or operation would be</p> |

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| | | | <p>relocated or replaced.</p> <p>Mitigation Measures GW-1 though not specifically mentioning supplies for wildlife and habitat uses, would essentially serve to monitor for potential effects to these resources as well as residential and agricultural properties, because it call for monitoring groundwater levels adjacent to areas of dewatering. However, with the addition of the slurry cutoff walls around intake work areas, the effects on local groundwater levels around the intakes are not anticipated to result in significant impacts. For additional detail, please see Chapter 7, Groundwater Resources.</p> |
| 1562 | 44 | <p>Concrete Batch Plant Impacts are Not Disclosed.</p> <p>The BDCP includes an "approximately 40 acre concrete batch plant and 2 acre fuel station near Twin Cities Road and Interstate 5 (within a designated reusable tunnel material (RTM) storage site)." (BDCP, p. 4-15.) Due to the proximity of the Stone Lakes National Wildlife Refuge to these activities, we are concerned about potential impacts on the Refuge and habitat in the surrounding vicinity. These impacts do not appear to have been disclosed in the BDCP or EIR/EIS.</p> <p>Batch plants are a significant source of noise, dust and traffic. The content of the dust would likely be hazardous to humans, wildlife and vegetation. Dust generated by batch plants can contain asbestiform particles and crystalline silica, which are hazardous to the human respiratory system. The pH of many of these dusts may also be dangerous to vegetation and animals. The EIR/EIS must analyze these potential impacts, and specifically the impacts of placing a batch plant so close to sensitive biological resources. At a minimum, mitigation in the form of noise screens, limiting truck drum speeds, lining hoppers with a resilient surface, and routing trucks to avoid sensitive receptors should be required. (See Exhibit K, Report on Noise Levels from Proposed Batching Plant, July 2008 [ATT 11].) [Footnote 10: Available at: http://www.idox.cotswold.gov.uk/WAM14/doc/Report-289934.pdf?extension=.pdf&id=289934&appid=&location=volume1&contentType=application/pdf&pageCount=1.]</p> | <p>With respect to dust, Chapter 22, Air Quality and Greenhouse Gases, quantifies fugitive particulate matter (PM) emissions associated with concrete batching activities. Health hazards and receptor exposure to PM generated by construction, including concrete batching, were evaluated through a health risk assessment (HRA). Impacts AQ-9 through AQ-12 summarize the results of the HRA and compare modeled PM concentrations to applicable air district health-based concentration thresholds. As discussed in Impact AQ-9, while concrete batching would generate fugitive dust, localized PM emissions in Sacramento County would be highest near intakes and intake work areas. Mitigation Measure AQ-9 outlines a tiered strategy to reduce PM concentrations from intake construction to a less-than-significant level. Best management practices would also be implemented at concrete batch plants, including application of water and/or chemical suppressants and use a hood system vented to a fabric filter/baghouse (see Section 3B.2.17.4 in Appendix 3B, Environmental Commitments, AMMS, and CMs).</p> <p>A discussion of aggregate mining activities including concrete batch plants and associated equipment is added to Chapter 23 of the Final EIR/EIS. This activity is associated with noise from equipment operating in borrow/spoil areas. Assuming 100% utilization within a given hour of day, the combined worst-case noise level would be 91 dBA Leq (1hr) at 50 feet. The effect of exposing noise-sensitive land uses to noise increases above thresholds from borrow/spoil areas would be significant. However, most construction activities of this kind would occur during daytime hours. Mitigation Measures NOI-1a and NOI-1b would be available to reduce this effect.</p> |
| 1562 | 45 | <p>Noise Impacts on the Refuge Have Not Been Addressed.</p> <p>Noise levels above 60 dBA, which are expected during construction, may interfere with communication among birds and other wildlife. A baseline of 40 dBA is used to describe the existing ambient noise level in the study area. (EIR/EIS, p. 23-20.) The thresholds for construction indicate that, where existing ambient noise level is less than 60 dBA, impacts would be significant where construction noise levels are predicted to exceed the DWR standard of 60 dBA (50 dBA during nighttime hours). There is no analysis in the EIR/EIS relating to the impacts of this noise on wildlife.</p> <p>Construction noise above background noise levels (greater than 50 dBA) could extend 1900 to 5250 feet from the edge of construction activities. (BDCP, Appendix 5.J, Attachment 5J.D, Indirect Effects of the Construction of the BDCP Conveyance Facility on Sandhill Crane, Table 4; see also BDCP, p. 12-1834.) Impacts may be similar among other bird species likely to be present in the area, which should also be analyzed in the BDCP and in the EIR/EIS. [Footnote 11: See BDCP, p. 12-1546 (California Black Rail), 12-1557 (California Clapper Rail), 12-1568 (California Least Tern), 12-1617 (Least Bell's Vireo and Yellow Warbler), 12-1627 (Suisun Song Sparrow and Saltmarsh Common Yellow Throat Sand), 12-1643 (Swainson's Hawk), 12-1659 (Tricolored blackbird), 12-1674 (Western</p> | <p>The commenter incorrectly states that there is no analysis in the EIR/EIS relating to the impacts of this noise on wildlife. An impact analysis of potential indirect effects on wildlife, including noise and visual effects is included for each relevant species under each alternative.</p> <p>The EIR/EIS uses noise thresholds established by California DWR, which were established based on a consensus of experts, and local and resource agencies. Mitigation Measure NOI-1a is available to reduce noise impacts during construction. Operation of the project is expected to conform to local standards, through Mitigation Measure NOI-3.</p> <p>The commenter states that the potential impacts of noise should be analyzed for bird species other than sandhill cranes. Chapter 12 of the FEIR/EIS includes a qualitative analysis of potential impacts of noise on all avian species. The analysis includes reference to AMMs and Mitigation Measures that will minimize the potential effects of noise and other indirect effects on these species.</p> |

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| | | Burrowing Owl), 12-1685 (Western Yellow-Billed Cuckoo), 12-1700 (White Tailed Kite), 12-1712 (Yellow Breasted Chat), 12-1722 Cooper's Hawk and Osprey), 12-1744 (Cormorants, Herons, and Egrets), 12-1758 (Short Eared Owl and Northern Harrier), 12-1769 (Mountain Plover), 12-1775 (Black Tern), 12-1787 (Grasshopper Sparrow and California Horned Lark), 12-1795 (Least Bittern and White Faced Ibis), 12-1808 (Loggerhead Shrike), 12-1818 (Modesto Song Sparrow), 12-1821 (Bank Swallow), and 12-1834 (Yellow Headed Blackbird).] | |
| 1562 | 46 | <p>We (Friends of Stone Lakes National Wildlife Refuge) continue to be concerned that BDCP, Appendix 5.J.C treats the indirect effects on greater sandhill crane of noise from all construction activity and pile driving separately. The two types of noise should be aggregated so that the full impact on cranes is disclosed. This issue was discussed in the Stone Lakes Technical Working Group but was not resolved. No credible explanation for the failure to aggregate all the noises from the Project has been provided.</p> <p>With respect to noise impacts, we are especially concerned about the impacts on two pieces of property between the forebay site and the existing state owned triangle ponds slated for muck storage. These areas are currently in alfalfa and corn that provide foraging habitat for sandhill cranes; Refuge staff has observed upwards of 500 birds that were mostly lesser sandhill cranes in that area. This farmland will be impacted by the project. As mitigation for this impact, BDCP should replace the value if directly impacted (which is unclear where that is stated and how much) or indirectly by noise by enhancing 0.1 acre for every affected acre within a mile of the affected foraging habitat. This could be carried out in Avoidance and Mitigation Measure (AMM) 20 - Foraging.</p> | <p>The commenter is concerned that the impacts of general construction activity and pile driving are not compounded but rather than presented separately. The noise analysis, and AMM20 methods associated with determining noise impacts have been updated to include the compounding effect of pile driving and general construction noises. The RDEIR/RDEIS analyzes the total combined effect of construction and pile driving noise on sandhill crane habitat. These numbers are provided in Appendix D, Substantive Revisions, Attachment 5J.D, Indirect Effects of the Construction of the BDCP Conveyance Facility on Sandhill Crane. (See Table 5J.D-5 and in the text throughout Attachment 5J.D). The impact of combined effects of construction noise and pile driving is further discussed under Impact BIO-71: Indirect Effects of the Project on Greater Sandhill Crane.</p> <p>The commenter also expresses concern about the impacts of the project on farmland between the forebay and the triangle RTM sites and states that the ratio of mitigation for indirect effects on these sites should be 1:1 rather than 0.1:1. See comment response 1562-219 for an explanation of the 0.1:1 mitigation ratio for supercharged foraging habitat sites.</p> |
| 1562 | 47 | <p>Conservation Actions for Greater Sandhill Crane and Other Species of Concern are Still Incomplete.</p> <p>Through the Stone Lakes Technical Working Group process we (Friends of Stone Lakes National Wildlife Refuge) were able to secure several improvements in the conservation strategy for greater sandhill cranes. (See Exhibit L, FSL Comments on Greater Sandhill Crane Strategy and Effects with ICF Comments, February, 24, 2014 [ATT 12], and Exhibits D [ATT 4] and E [ATT 5].) To a lesser extent, we addressed concerns with other species, though that effort was not completed. We expect that these commitments will be reflected in later drafts of the BDCP and EIR/EIS.</p> <p>With respect to greater sandhill crane, for instance, we secured a commitment for the creation of a temporary roost site and "super charged" foraging opportunities for the cranes that use the northern most roost site on the Refuge. These changes were in acknowledgement of the constraints from urbanization already impacting that roost site and as a result the greater likelihood that the roost site might be abandoned because of construction activities from CM 1. There has been no indication when these conservation actions would be undertaken in relation to the construction activities of CM 1. It is imperative that these conservation actions be undertaken at least one season in advance of the construction impacts in order to improve the chances for their effectiveness.</p> | <p>The commenter has provided notes from the Stone Lakes National Wildlife Refuge Working Group and requests clarification that language specifying that supercharged sites were developed one season prior to construction impacts has been incorporated into the AMMs for Greater Sandhill Crane. The language was included in AMM20 Greater Sandhill Crane (Appendix 3.C., BDCP).</p> |
| 1562 | 48 | <p>Friends of Stone Lakes National Wildlife Refuge (FSL) has concerns about the timing of crane conservation actions in general. There has been no specificity provided for when the two new roosting ponds, that will be created to connect the Cosumnes crane populations to those of the Refuge, will be constructed. Beyond the concerns already</p> | <p>Please see response to comment 1562-1.</p> <p>The commenter asks that the timing for specific conservation actions be disclosed in the EIR/EIS. It is premature to present specific schedules for the implementation of conservation actions at the EIR/EIS stage.</p> |

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| | | <p>expressed about funding certainty and timing of mitigations in relation to impacts, it is imperative to have the timing for these conservation actions mapped out to ensure that the Refuge can incorporate the presence of these actions into its own conservation management and monitoring schedule, and so that the timing can be analyzed in the context of the impacts from CM 1. When the conservation actions will be done, this needs to be as fully explicated as what they will be. To that end, a monitoring and management plan needs to be in place before construction begins, and the framework for that plan needs to be included in the BDCP so that it can be analyzed for completeness and appropriateness.</p> <p>Of equal concern to the timing of mitigations, is the timing of CM 1 activities. Narrower construction windows would limit the impact on cranes but the "to the extent practicable" language would seem to greatly diminish the likelihood that any restrictions would be adhered to. We understand that there will be construction window limitations to protect greater sandhill crane populations on Staten Island, and request those same restrictions on construction in the vicinity of Stone Lakes NWR.</p> | <p>The commitment to do so prior to construction of the water conveyance facilities is sufficient under NEPA/CEQA.</p> <p>Developing a management plan for a specific mitigation action is premature under NEPA/CEQA and is not required in order to determine whether the commitment is sufficient. Any such plan would have to be approved by the agencies and will be developed prior to initiating any specific conservation action. The Environmental Commitments together with the resource restoration and protection principles under Alternative 4 rely on the guidance outlined under the equivalent Conservation Measures in the Draft BDCP. Conservation Measure 11 (Environmental Commitment 11) requires that management plans are developed for protected lands. Under Alternative 4A, these plans will be subject to the approval of the resource agencies and will be developed prior to or concurrent with project related impacts. Please refer to Response to Comment 2629-9 for more information about implementation of environmental commitments regarding environmental restoration and protection of sensitive species and habitat.</p> <p>Construction window limitations would be applicable to the entire sandhill crane winter use area (not only Staten Island) as described in AMM20.</p> |
| 1562 | 49 | <p>The Stone Lakes Technical Working Group meetings largely focused on greater sandhill crane and there was in the end inadequate time to discuss concerns about the adequacy of the conservation measures for either the Swainson's hawk or the burrowing owl. Please refer to Exhibit B [ATT 2], FSL Unresolved Issues with notes from ICF and Exhibit F [ATT 6], Western Burrowing Owl comments, for additional concerns related to these two species. In the realm of timing, the loss of riparian hawk nesting habitat will be significant, and though language has been added to require tree planting and foraging in the vicinity of impacts, Friends of Stone Lakes National Wildlife Refuge (FSL) has not been able to discuss the specifics of these changes or their timing. We are also concerned that there are no Avoidance and Mitigation Measures (AMMs) relating to protection of hawks. The BDCP and EIR/EIS must be revised to include adequate protections for these species.</p> | <p>The commenter has included notes from the Stone Lakes National Wildlife Refuge Working Group meetings and is concerned that there are no AMMs relating to the protection of hawks. AMM18, Swainson's Hawk and White-Tailed Kite is described in Appendix 3.C of the BDCP and includes measures (1) protecting hawks during the nesting season (preconstruction surveys, implementation of no-disturbance buffers, no nest tree removal during the active season and (2) transplanting of mature trees to replace any lost nest sites to compensate for the temporal loss of mature riparian habitat for the species. AMM18 was updated for the Recirculated Draft EIR/Supplemental EIS (see Appendix D) and now specifically addresses Swainson's hawk and AMM 39 White-Tailed Kite was added.</p> |
| 1562 | 50 | <p>[ATT 1: Exhibit A. ICF Summary Status Report. April 18, 2014. Concerns raised at Stone Lakes National Wildlife Refuge Association/BDCP meetings.]</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 the comment referencing the attachment or the Final EIR/EIS. Responses to the attachment are provided below.</p> |
| 1562 | 51 | <p>[From ATT 1:]</p> <p>Forebay size and location:</p> <p>Concerns: At many of the earlier meetings, Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern about the size and location of the forebay that was planned adjacent to the refuge.</p> <p>Response: Through the optimization exercise the forebay was reduced from 750 acres to 40 acres, and moved down to the Glanville Tract. Bart acknowledged that the Glanville option has less impact than the previous design, and responded favorably to the benefit of coupling of roads (I-5 access), power needs, etc. with the optimized alignment.</p> <p>To do: Nothing further.</p> | <p>This comment is consistent with information in the EIR/EIS for Alternative 4. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.</p> |

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| 1562 | 52 | <p>[From ATT 1:]</p> <p>Northern borrow/spoil site:</p> <p>Concerns: For the Admin Draft CM1 design, Bart expressed concerns about the northern borrow/spoil site and impact to sandhill cranes and waterfowl. He said cranes forage there and there's an Natural Resources Conservation Service (NRCS) conservation easement in that location. He also suggested that we look into the possibility of turning the borrow/spoil site into foraging habitat or roosting habitat. At a later meeting, there was a recommendation to consider creating a permanent roost area with adjacent foraging to offset impacts from the borrow/spoil site.</p> <p>Response: We looked into the NRCS conservation easement, and the current footprint does not affect that easement. The crane Avoidance and Mitigation Measure (AMM) requires temporary supplemental foraging habitat for indirect effects to foraging habitat, and the overall crane conservation strategy includes mitigation for direct effects. Also, the AMM requires wetland roost site acreage but established for indirect effects to wetland roost sites.</p> <p>To do: We will further explore their recommendation to convert the borrow/spoil site into foraging or roosting habitat after its use.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of greater sandhill crane objectives and avoidance and minimization measures for the BDCP. The commenter has provided the recommendation that one of the borrow/spoil sites (referred to RTM sites in the draft EIR/EIS) be turned into roosting or foraging habitat for sandhill cranes after its use as a storage area. This is a proposed use of suitable RTM sites which is found in AMM6 Disposal and Reuse of Spoils, Reusable Tunnel Material, and Dredge Material. AMM6 requires that "to the extent feasible, the material will be relocated and the storage site restored to its former condition in areas where such restoration is desirable for the conservation of covered species, such as locations supporting greater sandhill crane foraging habitat."</p> |
| 1562 | 53 | <p>[From ATT 1:]</p> <p>Cosumnes-Mokelumne Restoration Opportunity Area (ROA):</p> <p>Concerns: In meetings early in the process, Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern about the Cosumnes-Mokelumne ROA overlapping with the Stone Lakes planning boundary (Zacharias Island) and an area SLNWRA identified as a potential forebay site. Also, they commented that we should look into the feasibility of siting tidal restoration in the Cosumnes-Mokelumne ROA in a way that avoids crane high use areas (other than perhaps muted tidal) as identified in Gary Ivey's maps, and come up with language for CM4 in siting and design criteria.</p> <p>Response: The ROA is still in the same location and now overlaps with the forebay and Zacharias Island (RTM site). But this should be okay because the ROA is a large area within which tidal restoration will be sited. Siting and design criteria were developed in CM4 to site tidal restoration away from crane high use areas. More specific siting will be addressed through subsequent project level CEQA process.</p> <p>To do: We are looking at potentially modifying the ROA as part of the CM4 optimization exercise.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |
| 1562 | 54 | <p>[From ATT 1:]</p> <p>Mitigation and Avoidance & Mitigation Measures (AMMs) dealing specifically with impacts to Stone Lakes:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern about not having mitigation measures dealing specifically with impacts to SLNWR, or</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. The EIR/EIS identifies mitigation measures to reduce significant impacts to the extent feasible. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |

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| | | <p>sufficient Avoidance and Mitigation measures to reduce impacts</p> <p>Response: We refined the conservation strategy for the greater sandhill crane to identify lands in the refuge planning boundary for protection and restoration -- in part to offset impacts to cranes in the refuge. We also refined the AMMs to address indirect effects to sandhill cranes in the refuge.</p> <p>To do: Consider additional mitigation to address the real and quantifiable impacts of the project.</p> | |
| 1562 | 55 | <p>[From ATT 1:]</p> <p>Conservation inside refuge planning boundary:</p> <p>Concerns: Some conservation should be focused inside the refuge planning boundary in order to offset impacts to refuge. Objective 1.4 should be re-written to make sure it is specifying roost site creation within the refuge planning boundary.</p> <p>Response: (See preceding comment.) Crane objective 1.4 was revised to specify that conservation will be within the refuge planning boundary.</p> <p>To do: Nothing further.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |
| 1562 | 56 | <p>[From ATT 1:]</p> <p>Timing of mitigation relative to impacts:</p> <p>Comment: Mitigation for CM1 should occur prior to or in concert with the loss of habitat associated with project construction. Should develop language regarding timing and location of foraging habitat protection relative to impacts.</p> <p>Response: We described the "rough proportionality" and stepwise approach for timing of conservation, and that it is not tied to mitigation specifically to CM1 impacts in the vicinity of Stone Lakes. We added language to the Avoidance and Mitigation Measure (AMM) about setting up supercharged habitat prior to construction, and requirement to replace the Stone Lakes roost site, if impacted, in place at the time construction begins.</p> <p>To do: Consider the timing issue further to determine whether additional specificity about timing of crane mitigation relative to CM1 impact would be appropriate.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> <p>For more information regarding the great sandhill crane, please see Master Response 17.</p> |
| 1562 | 57 | <p>[From ATT 1:]</p> <p>Mitigation east of Plan Area:</p> <p>Concerns: (Sean Wirth) concern that there may not be enough inventory to meet conservation objectives, with South Sacramento Habitat Conservation Plan (HCP) and Elk Grove Sphere of Influence (SOI) expansion. Asked that we look at conservation within the urban services boundary. Mitigation for Conservation Measure 1 (CM1 -- the conveyance facility) must not be limited to the boundaries of the HCP/Delta. Mitigation should include lands to the east of Interstate 5. Should expand the Plan Area to serve as "land dam".</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS. Please see Master Response 17 for further information regarding great sandhill crane.</p> |

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| | | <p>Response: We replied that mitigation for protected species under the Natural Community Conservation Planning Act (NCCPA) is limited to the HCP area, and we will not be revising the Plan boundary to accommodate conservation in the urban services area. The current plan area is based on the legal delta and increasing the overlap between the BDCP and South Sacramento HCP could create more potential conflicts.</p> <p>To do: Nothing further</p> | |
| 1562 | 58 | <p>[From ATT 1:]</p> <p>Undergrounding Powerlines:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) (and wildlife agencies) expressed concern that evaluation of the power lines does not include an underground option, including the possibility of separate underground power service to individual pump stations and the tunnel forebay facility. Suggested undergrounding the east-west line and any other lines that are permanent in the vicinity of cranes. They would like to see the undergrounding option seriously considered. They recommended writing into the plan that undergrounding will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. They also asked for price per mile for undergrounding, and specifics regarding infeasibility.</p> <p>Response: DWR agreed to prepare a report on feasibility of undergrounding. We added to the crane Avoidance and Mitigation Measure (AMM) that undergrounding will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors.</p> <p>To do: Continue to analyze feasibility of undergrounding.</p> | <p>See responses to comments 1562-25 through 27 regarding transmission lines. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> <p>Please note that as part of AMM20, Greater Sandhill Crane, DWR has committed to the following: During the final powerline design process, undergrounding of all new permanent powerlines north of Glannvale Tract will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. DWR will continue to analyze the feasibility of undergrounding powerlines.</p> <p>For more information please see Appendix 3B Environmental Commitments of the RDEIR/SDEIS.</p> |
| 1562 | 59 | <p>[From ATT 1:]</p> <p>Reusable Tunnel Material (RTM) Permanent vs. Temporary:</p> <p>Concerns: The RTM sites should be evaluated as permanent sites and their impacts evaluated accordingly.</p> <p>Response: The RTM sites were evaluated as permanent impacts in the public review draft.</p> <p>Work left to do: Nothing further, although we are considering modifications that would reduce the RTM footprint.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS. Please see response to comment 1562-41 regarding RTM.</p> |
| 1562 | 60 | <p>[From ATT 1:]</p> <p>Indirect effects on cranes:</p> <p>Concerns: The issue of indirect effects on cranes was a major one for this group and was discussed at most of the meetings. In an early meeting, Stone Lakes National Wildlife Refuge Association (SLNWRA) insisted that the indirect impact of 1300 feet for greater sandhill crane (used in the Admin Draft) was low and not consistent with Gary Ivey's work. Although Gary provided this distance recommendation in an email, they described the recommendation as a "back of the napkin" approach. They suggested that we</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group Meeting and which includes a task for the group to continue to discuss the development of a monitoring and adaptive management program on Stone Lakes National Wildlife Refuge. No changes to Chapter 12 of the draft EIR/EIS are requested. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>re-evaluate the 1,300-foot indirect effect distance, and look at it in terms of type of disturbance -- decibels and continuous versus intermittent. They also asked that we look at reverberations from pile drivings, and construction light impacts. After we prepared a more detailed indirect effect analysis, they said that we should include traffic from re-routed 160, and change the buffers for the noise analysis limit from 60dB to 50dB to address the uncertainty of how cranes will react to noise compared to vireos and gnatcatchers. They recommended shielding so lighting does not go upward over noise barriers. They asked that we evaluate potential effects of vibrations from pile drivers. They expressed concern about the roost site on Hood Franklin Road: it is not frequently travelled now and travel will significantly increase with project construction. (Gary said that cranes often avoid that area anyway because of existing trails, but Bart said some cranes are using the pond now and trails are closed at dusk.) Bart expressed concern that if there is a higher level of traffic during the dusk and evening period, this could be problematic for cranes coming in to roost. A noise wall was not recommended for along Hood Franklin Road because of visual impact to cranes. They suggested using an 800-meter buffer for all indirect effects.</p> <p>Response: A detailed indirect effects analysis, including an analysis of pile driving noise, was prepared and used to refine effects analysis and develop Avoidance and Mitigation Measures (AMMs) to avoid and minimize indirect effects on the crane. In response to SLNWRA and agency comments on the analysis, we added an analysis of noise from re-routed traffic and an analysis on lighting, and we changed the noise buffers from 60dB to 50dB.</p> <p>We incorporated the noise analysis into the crane effects analysis, and developed AMMs to minimize indirect effects. We added a requirement for "supercharging" crane habitat proportional to the acreage that would be indirectly affected (See preceding comment). We also added a requirement to create a flooded ag site within a mile of the roost site on the refuge that would be indirectly affected by traffic noise along Hood Franklin Road. This would just be during construction, and would be a landowner agreement. We added a requirement for shielding of lights.</p> <p>Work left to do: We will further discuss the development of a monitoring and adaptive management program on Stone Lakes National Wildlife Refuge.</p> | |
| 1562 | 61 | <p>[From ATT 1:]</p> <p>Permanent indirect effects, general:</p> <p>Concerns: They expressed concern about permanent effects to refuge from noise and lighting.</p> <p>Response: The forebay moved to Glanville Tract. Arnold explained to the group that the forebay probably would not have an Operations and Maintenance (O&M) center, only a small office, and there would be regular maintenance of the facility. Lighting would be available but would not be on all of the time. There would be a 6'-high berm around the retention basin, which would be expected to further minimize indirect effects.</p> <p>To do: Consider permanent indirect effects on the refuge when finalizing CM1 design. Consider whether it would be appropriate to add measures to the crane Avoidance and</p> | <p>The commenter has included notes from the Stone Lakes National Wildlife Refuge Working Group meetings and is concerned that lighting impacts may affect sandhill cranes on the Stone Lakes National Wildlife Refuge. AMM20 has been revised and includes measures to reduce lighting effects on cranes and other wildlife including the following:</p> <ul style="list-style-type: none"> • Route truck traffic to reduce headlight impacts in roosting habitat. • Install light barriers to block the line-of-sight between the nearest roosting areas and the primary nighttime construction light source areas. • Operate portable lights at the lowest allowable wattage and height, while in accordance with the National Cooperative Highway Research Program's Report 498: Illumination Guidelines for Nighttime Highway Work. • Screen all lights and direct them down toward work activities and away from the night sky and |

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| | | Mitigation Measure (AMM) such as vegetative screening around facilities with permanent lighting. | <p>nearby roost sites. A biological construction monitor will ensure that lights are properly directed at all times.</p> <ul style="list-style-type: none"> Limit the number of nighttime lights used to the greatest extent practicable in light of worker safety requirements. Install a vegetation screen or other noise and visual barrier along the south side of Hood Franklin Road along the length of Stone Lake National Wildlife Refuge's property to reduce disturbance to sandhill cranes. This barrier will not be installed immediately adjacent to crane foraging habitat, and placement will be coordinated with a qualified crane biologist approved by the wildlife agencies |
| 1562 | 62 | <p>[From ATT 1:]</p> <p>Cosumnes connection for cranes:</p> <p>Concerns: We should connect Cosumnes to Stone Lakes seamlessly. Cranes feed within 6 km of roost sites, so we should have a series of roost sites no greater than 6 km apart from Cosumnes to Stone Lakes.</p> <p>Response: The conservation working group developed a crane objective to meet this need.</p> <p>To do: Nothing further</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of greater sandhill crane objectives for the BDCP. There is no request here to modify the text of Chapter 12 of the Draft EIR/EIS. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 63 | <p>[From ATT 1:]</p> <p>Hunting on crane roost sites:</p> <p>Concerns: No hunting should be allowed on crane roost sites.</p> <p>Response: This requirement was added to the BDCP (CM11).</p> <p>To do: Nothing further.</p> | <p>The commenter recommends that no hunting be allowed on crane roost sites that are restored and/or protected as part of the BDCP. This requirement was added to the BDCP (See Chapter 3, Conservation Measure 11).</p> |
| 1562 | 64 | <p>[From ATT 1:]</p> <p>Seasonal flooding:</p> <p>Concerns: We should insert language into the crane objectives about taking seasonal flooding into consideration as well as sea level rise.</p> <p>Response: Language was added to the relevant objectives to address this. ("in consideration of seasonal flooding and sea level rise")</p> <p>To do: Nothing further.</p> | <p>The commenter has provided the notes from the TTT meetings that were held to develop the BDCP crane objectives. No suggested changes are recommended.</p> |
| 1562 | 65 | <p>[From ATT 1:]</p> <p>Avoidance and Mitigation Measure (AMM) regarding abandoned roost sites:</p> <p>Concerns: The crane conservation strategy in the Admin Draft called for creating new roost sites if sites are abandoned. If a site were abandoned, this would be too late.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of greater sandhill crane avoidance and minimization measures for the BDCP. There is no request here to modify the text of Chapter 12 of the Draft EIR/EIS. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>Response: BDCP dropped this requirement for the Public Review Draft, added a requirement for creation of roost sites regardless of roost site abandonment, and added AMMs to reduce the risk of abandonment.</p> <p>To do: Nothing further.</p> | |
| 1562 | 66 | <p>[From ATT 1:]</p> <p>Size and configuration of crane roost sites:</p> <p>Concerns: The Stone Lakes National Wildlife Refuge Association (SLNWRA) supported creation of a managed seasonal wetland within the Refuge boundary under Greater Sandhill Crane (GSHC) Objective 1.4. However, they did not believe 40 acres was an adequate roost site size. Also, they asked to see an upland buffer around the roost sites. At a later meeting, they requested that the upland buffer language in the objectives and conservation measure be refined to more clearly describe configuration.</p> <p>Response: The conservation working group worked with Gary Ivey to come up with a larger roost site size for preserves in the refuge planning boundary. Bart contributed to this. Later, the upland buffer language in the objectives and conservation measure were refined to more clearly describe the configuration.</p> <p>To do: Nothing further</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of greater sandhill crane objectives for the BDCP. There is no request here to modify the text of Chapter 12 of the Draft EIR/EIS. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 67 | <p>[From ATT 1:]</p> <p>Construction windows:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) said that DWR should look into the feasibility of a requirement that construction must occur during the day only, in the vicinity of crane roost sites, in order to reduce indirect effect to cranes. FWS indicated that we need a defined work window and more details of work windows and operations for Section 7 Consultation.</p> <p>Response: DWR engineers indicated that they cannot commit to this, but that the BDCP can say they will do this "to the extent feasible". We will need to assume worst case scenario for the effects analysis (i.e., that construction can occur any time of year or day except restrictions on pile driving for fish).</p> <p>To do: Nothing further.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of greater sandhill crane avoidance and minimization measures for the BDCP. There is no request here to modify the text of Chapter 12 of the Draft EIR/EIS. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 68 | <p>[From ATT 1:]</p> <p>"Supercharging":</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) suggested looking into feasibility of developing an avoidance and minimization measure that involves agreements with farmers to "supercharge" foraging areas near the construction site whenever there is a potential direct or indirect impact to foraging habitat. They suggested a 1:1 ratio of foraging habitat. This would not have to be a permanent conservation easement -- it could be a temporary agreement during construction. However, it could be</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting and has included an item which was to consider whether it would be appropriate to develop a monitoring strategy and associated adaptive management for sandhill cranes in the plan area. A monitoring and adaptive management report was prepared and will be appended to the final EIR/EIS.</p> |

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| | | <p>a permanent easement if the landowner agrees to do this and if it meets the criteria under crane objective 1.1. Supercharged foraging sites should be in place prior to construction, and located outside of the sound buffer.</p> <p>Response: Requirements were written into the crane Avoidance and Mitigation Measure (AMM), developed in coordination with the SLNWR conservation working group, to address this. Supercharging would only need to be 0.1:1 (0.1 acre of supercharged corn is equivalent to an acre of harvested corn, according to Gary). We added a stipulation that supercharged foraging sites must be in place prior to construction, and located outside of the sound buffer.</p> <p>To do: A Consider whether it would be appropriate to develop a strategy for monitoring and adaptive management to be associated with it.</p> | |
| 1562 | 69 | <p>[From ATT 1:]</p> <p>Transmission line alignment:</p> <p>Concerns: This issue is a big one for the group, and has come up at nearly every meeting. The group (including the wildlife agencies) expressed concern about transmission lines and likelihood of sandhill crane bird strikes. They want to know the process for determining the final alignment for the powerlines, and how agencies would be involved in the process. They also asked that we differentiate between the different types of lines (69 kV and 230 kV). Bart expressed concern about the tie-in to the east: cranes are using agricultural lands around the dairies in this area, coming from roost sites on the Cosumnes Preserve. They also had questions about subsequent CEQA/NEPA compliance for final siting of the lines.</p> <p>Response: We added language into the crane Avoidance and Mitigation Measure (AMM) requiring no net increase in bird strike risk, and requiring that the wildlife agencies sign off on the "no-net increase" determination prior to final line placement. In response to a concern they raised that undergrounding Staten would be all that is needed to meet this requirement and this would not help Stone Lakes, we agreed to have this performance standard for both the northern and southern zones. We looked into language in the EIR/EIS about subsequent CEQA/NEPA analysis, and there was no requirement specifically for the transmission lines, although we noted that if the final alignment has different impacts than what was analyzed in the document, further CEQA/NEPA review will be required regardless. Gary Ivey looked into the difference between 69 kV and 230 kV lines and concluded that there would be no difference in terms of crane bird strike risk.</p> <p>To do: DWR has asked the utilities to initiate their evaluation of common assumptions necessary for the power flow studies, the first of three studies (per utility) which will be conducted in order to determine the parameters and alignment of transmission and interconnection. DWR will analyze the study results and any environmental impacts of the proposed new transmission in the overall environmental assessment for the BDCP.</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting regarding effects on greater sandhill crane. No changes to Chapter 12 of the draft EIR/EIS are proposed. Please see response to comments 1562-23 through 29 regarding transmission lines.</p> |
| 1562 | 70 | <p>[From ATT 1:]</p> <p>Bird strike analysis:</p> | <p>The commenter has provided the notes from the TTT meetings that were held to develop the BDCP crane objectives. No suggested changes are recommended.</p> |

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| | | <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) had concerns that the analysis did not take sufficient account of strike frequencies for young, inexperienced cranes.</p> <p>Response: We believe the 60% effectiveness estimate is sufficient to account for this factor, based on the analysis provided by Gary Ivey.</p> <p>Work left to do: Nothing further.</p> | |
| 1562 | 71 | <p>[From ATT 1:]</p> <p>Stone Lakes National Wildlife Refuge Association (SLNWRA) Right of Way (ROW) across Zacharias Island access:</p> <p>Concerns: SLNWR expressed concern with a proposed alignment we presented during the optimization exercise that had a spillway on Zacharias Island, because a permanent easement would be needed across the railroad ROW owned by the refuge. Jim Monroe (FWS solicitor) said that it would be very difficult getting a permanent easement across this land. SLNWRA expressed concern that there could be a public access trail along that ROW and so there could be visual and access impacts. Jim Monroe brought up that it might also be a wildlife corridor, and the project would need to consider impacts to the corridor. Jim also brought up that if a Corps permit is needed, it may be difficult to make a least environmentally damaging practicable alternative (LEDPA) determination. SLNWR asked more information on the activities that would occur within the ROW, so they can make a consistency determination.</p> <p>Response: In response to comments during the optimization process, the design was changed to move the spillway off Zacharias Island and instead, the island would have an Reusable Tunnel Material (RTM) storage site which would require only a temporary easement. Mike and Bart have been coordinating to get SLNWR the necessary information and on design of the crossing.</p> <p>To do: Mike will continue to coordinate with engineers and SLNWR to resolve issues.</p> | <p>The commenter has included notes from the Stone Lakes National Wildlife Refuge Working Group meetings and is concerned about the SLNWRA ROW across Zacharias Island. The commenter further provides the resolution under the response provided that the design has been changed to move the spillway off of Zacharias Island. No comments on the adequacy of the EIR/EIS analysis are presented here.</p> |
| 1562 | 72 | <p>[From ATT 1:]</p> <p>Reusable Tunnel Material (RTM) toxicity:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern about potential toxicity in the RTM. Bart explained that they cannot take on a site for the refuge if there are toxicity problems.</p> <p>Response: Gordon explained that additives consist of biodegradable polymers, but that a detailed analysis was being prepared with soil samples from geotechnical work in the Delta. The report was subsequently completed and forwarded to the agencies on March 17, 2014. FWS provided comments in an email dated March 19, 2014.</p> <p>To do: Continue discussions with the wildlife agencies in response to their March 19 comments. This will be done in the context of the TTT meetings.</p> | <p>Please see Master Response 12 for a discussion of RTM.</p> <p>As indicated in the Reusable Tunnel Material Testing Report, which the commenter is referring to, thus far, RTM was tested in the context of :</p> <ul style="list-style-type: none"> • Geotechnical properties to evaluate constructability if used as structural fill • Environmental properties to characterize potential toxicity if placed in the environment • Planting suitability to assess sustainability for habitat growth and agricultural use. <p>Based on the results of the geotechnical, environmental, and planting suitability tests, RTM appears to be suitable for the above proposed beneficial uses following storage and drying. Consultation with the governing regulatory agency would be required to obtain the necessary approvals and permits.</p> <p>Appropriate coordination and consultation w/the applicable wildlife agencies will occur as required.</p> |

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| 1562 | 73 | <p>[From ATT 1:]</p> <p>Vineyard/orchard conversion:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern about ongoing threats to cranes from conversion to orchards and vineyards. They were also concerned that our habitat maps show areas as habitat that had been converted to orchards or vineyards since the mapping was done.</p> <p>Response: ICF's GIS staff went through aeries to identify areas that had been converted to orchards and vineyards since the original mapping was done, and adjusted the mapping and crane model accordingly. ICF added to the BDCP document that orchards and vineyards are an ongoing threat to the species, and that rapid loss in the Stone Lakes area is driving the need for conservation in that area.</p> <p>To do: Nothing further.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> <p>For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 74 | <p>[From ATT 1:]</p> <p>Indirect effects of vineyards:</p> <p>Concerns: Stone Lakes National Wildlife Refuge Association (SLNWRA) expressed concern that grape farmers farm at night and make a lot of noise. Requested that we add to CM3 that roost sites be sited away from vineyards.</p> <p>Response: We indicated that we could add some language to CM3 to this effect.</p> <p>To do: Consider revisions to CM3 language. Revised language would retain flexibility in case the best possible roost location is in the vicinity of a vineyard.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |
| 1562 | 75 | <p>[From ATT 1:]</p> <p>Swainson's hawk:</p> <p>Concerns: Concern about indirect effects to Swainson's hawks nesting in riparian along the railroad right of way (ROW) near the intakes. Concern that impacts to hawks from CM1 would not be mitigated in Stone Lakes area.</p> <p>Response: Added language to the hawk AMM that the near-term measures to reduce hawk impacts (tree planting, early establishment of foraging habitat) would be implemented in the vicinity of impacts.</p> <p>To do: Stone Lakes National Wildlife Refuge Association (SLNWRA) has indicated that they will likely provide further comments on Swainson's hawk in the future, which we will address at that time.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of Swainson's hawk objectives and avoidance and minimization measures for the BDCP. There is no request here to modify the text of Chapter 12 of the Draft EIR/EIS.</p> |
| 1562 | 76 | <p>[From ATT 1:]</p> <p>Monitoring:</p> <p>Concerns: Bart suggested monitoring cranes within 1/2 mile of construction disturbance. Suggested we develop monitoring and adaptive management program on Stone Lakes</p> | <p>Please see response to comment 1562-68. The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |

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| | | <p>National Wildlife Refuge -- that we fund biologists on the refuge. For bird strike monitoring, Stone Lakes National Wildlife Refuge Association (SLNWRA) suggested using monitors on the transmission lines that register when there is a strike.</p> <p>Response: We have indicated that we will develop monitoring details for the crane.</p> <p>We need to determine the practical reason for monitoring -- what useful information would it give us and what would we do in response to the information? We told them that Gary Ivey would prepare a monitoring and adaptive management plan for implementing the crane Avoidance and Mitigation Measure (AMM) related to indirect effects. We said that we would look into the transmission line monitors.</p> <p>To do: Discuss the kind of information that should be gleaned from monitoring and how it will be used. Gary Ivey will complete the monitoring and adaptive management plan for the AMM. Coordinate with Gary Ivey regarding monitors on transmission lines that register when there is a strike.</p> | <p>For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 77 | <p>[From ATT 1:]</p> <p>Burrowing owl:</p> <p>Concerns: The group expressed that we should address impacts to burrowing owls that would be directly and indirectly affected by the construction. They are concerned that the "passive" relocation techniques are not entirely effective. We should account for possible unaccounted inadvertent take of owls when one-way doors malfunction. Maybe use more active relocation instead of passive? Stricter avoidance? We should not require one-way doors when any likelihood owls will remain. They want to further review the burrowing owl strategy and provide additional feedback.</p> <p>Response: We told them we would investigate the issues they raised further and look into ways to improve the Avoidance and Mitigation Measure (AMM). We also told them we would send them a compilation of language from the BDCP regarding owls for them to comment on.</p> <p>To do: Investigate the issues they raised further and look into ways to improve the AMM. Send them a compilation of language from the BDCP regarding owls for them to comment.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting for the development of western burrowing owl objectives and avoidance and minimization measures for the BDCP. AMM23 Western Burrowing Owl states that relocation will not occur without CDFW approval of a burrowing owl exclusion plan.</p> |
| 1562 | 78 | <p>[From ATT 1:]</p> <p>Acquisition for refuge:</p> <p>Concerns: The group expressed concern about lack of assurance that refuges will end up with the lands DWR acquires within the refuge boundary. Bart does not want to require that it be part of refuge, because refuges might not end up wanting it (e.g., contaminants issues). They also expressed concern that refuges may not be able to take land that has been acquired through eminent domain.</p> <p>Response: We said that we will work on drafting language in the BDCP to address this.</p> <p>To do: We will work with Bart and agency legal representatives on language to consider</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. Please see response to comment 1562-1 regarding the new preferred alternative and revisions made in the RDEIR/SDEIS.</p> |

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| | | adding to the plan that addresses Stone Lakes concerns related to future acquisition within refuge project boundary. We may also develop criteria for the property prior to refuge acceptance of title and/or management. | |
| 1562 | 79 | [ATT 2: Exhibit B. Bay Delta Conservation Plan and Peripheral Tunnel Project Unresolved Issues with ICF Notes. From Stone Lakes Working Group, Friends of Stone Lakes National Wildlife Refuge. May 30, 2014.] | This comment describes notes from ICF but does not raised an environmental issue to address. |
| 1562 | 80 | <p>[From ATT 2:]</p> <p>Location of Forebay Facilities within Refuge Boundary</p> <p>Background: The forebay and tunnel entrance for the conveyance facility were originally planned to be located just west of South Stone Lake. The location would eliminate several hundred acres of good waterfowl foraging area and have visual and other impacts on the refuge, hunting activities and wildlife. DWR, recognizing our concerns, design/cost issues, and other's concerns, significantly reduced the size of the forebay (750 to 40 acres) and relocated the forebay and tunnel entrance to just north of Twin Cities Road, an area predominantly planted in grapes. The impacts on foraging area and on refuge-managed lands were reduced.</p> <p>Reference: Items 1, 11, 26 and 28 of Stone Lakes Working Group Summary</p> <p>Impacts: The facility is not a use consistent with the objectives of the refuge. Tunnel muck material is planned for storage on Zacharias Island, a key habitat within the Refuge boundary. The location of the facility within the legislative boundary may impact the ability of the FWS to complete the refuge. Tunnel muck will need to be conveyed across the railroad levee property owned by the Refuge. The EIR/EIS evaluates tunnel muck as if it will be permanently stored on site, but DWR anticipates there will be economic uses that will allow for reuse and removal of the material.</p> <p>The forebay and tunnel entrances are an intrusion in the rural character of land within the Stone Lakes National Wildlife Refuge boundary. The design of the forebay and tunnel entrances is not complete. The facility could have visual, noise and lighting impacts on the surrounding area.</p> <p>Mitigation: To compensate for the location of the forebay and related facilities within the Refuge boundary and project impacts on the ability of the Refuge to carry out its Comprehensive Conservation Plan, DWR has proposed to the Working Group that Zacharias Island would be acquired as part of the project and ultimately protected and managed as part of the refuge for wildlife habitat.</p> <p>Outstanding Issues: The details of how access to Zacharias Island will be provided across Refuge owned property have yet to be worked out. The greater concern, however, is the lack of assurances that Zacharias Island ownership and management will ultimately be incorporated into the Refuge as mitigation for project impacts. We also want mitigation to include visual screening with native landscaping to reduce the visual, noise and glare impacts of the facility.</p> <p>Position: There need to be commitments/assurances in the plan or the EIR/EIS that</p> | <p>The RDEIR/SDEIS, released in 2015, introduced a new preferred alternative, 4A, which introduced some different locations for conveyance facilities. No conveyance facilities would be placed in Stone Lakes National Wildlife Refuge under Alternatives 4 or 4A, although facilities would be placed next to part of the refuge. Please refer to Chapter 23, Noise, Chapter 17, Aesthetics, Chapter 12, Terrestrial Biological Resources, and Chapter 15, Recreation for more detail on impacts to these resources for all of the alternatives.</p> <p>The proposed project, Alternative 4A, does not include an HCP/NCCP and thus will not be protecting and restoring large tracts of land. The EIR/EIS can't identify specific areas for restoration or protection, including Zacharias Island, as this would lead to potential land speculation, especially considering that the project has yet to be approved and permitted.</p> |

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| | | Zacharias Island will be acquired as part of the project, habitat restored after project construction is finished, and the property turned over to the USFWS or appropriate entity for management. The plan needs to specify that forebay and tunnel entrance facilities will be visually screened with appropriate native vegetation. Also, plans on managing the spillway in a wildlife friendly manner should be included. We are also concerned about rodent control activities and would like to see methods that will not expose hawks and other predators to poisons. | |
| 1562 | 81 | <p>[From ATT 2:]</p> <p>Adequacy of Habitat Conservation Measures and Mitigation for Listed Species</p> <p>Background: The BDCP is not just a plan to build a huge tunnel. It also is a plan to restore habitat and provide an aquatic environment that improves conditions for endangered fish species. Many of the same actions that the BDCP claims will benefit fish also destroy terrestrial wildlife habitat. The plan identifies goals, objectives and measures to compensate for the loss of terrestrial species of concern within the Delta associated with implementation of the BDCP. These include, among other species, the greater sandhill crane (gsc), lesser sandhill crane, western burrowing owl, Swainson's hawk and tri-colored blackbird. The primary focus of the Stone Lakes Working Group has been on gsc. We have had some discussion on western burrowing owl and Swainson's hawk but these have been not been concluded.</p> <p>Reference: Items 6, 25 and 27 of Stone Lakes Working Group summary</p> <p>Mitigation: A major commitment emerging from the Working Group discussions is the creation of a new wetland roosting area between Stone Lakes and the Cosumnes Preserve. This would enhance public resources spent to create roosting and foraging habitat for migratory species in southwest Sacramento County.</p> <p>Outstanding Issues: We still have concerns about gsc impacts, as well as the adequacy of Swainson's hawk and burrowing owl conservation strategies. The loss of riparian hawk nesting habitat at the intakes will be very significant. Language has been added to require tree planting and foraging habitat mitigation to occur in the vicinity of the impacts, but we have yet to discuss the details of these changes. There remains a question as to whether indirect impacts on hawks have been adequately mitigated. With respect to the burrowing owl, we have raised concerns about the BDCP's reliance on passive relocation techniques as ineffective. The plan states that grasslands will be restored and preserved, but it does not adequately address how these grasslands will be restored and managed. A plan to reintroduce and establish fossorial mammals to the grassland habitats as well as managing them as short grass habitat would increase the likelihood of developing successful burrowing owl colonies.</p> <p>Position: We hope to address these remaining concerns before the working group meetings conclude. In addition, there remain several follow-up commitments from DWR/ICF stemming from the Stone Lakes Working Group discussions regarding specific language in the Conservation Measures for listed species. We want a report back on the disposition of these items at a subsequent meeting after the comment period has concluded.</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. The commenter states their support of the creation of greater sandhill crane roosting habitat sited between the Cosumnes River Preserve and Stone Lakes National Wildlife Refuge. The details of this roost site creation for greater sandhill crane is described in Objective GSHC1.4 (see Chapter 3, Section 3.3, Biological Goals and Objectives, of the BDCP and Resource Restoration and Performance Principle GSC3 for the Preferred Project of the Final EIR/EIS). The commenter also states their concern regarding impacts on greater sandhill crane, the Swainson's hawk, and western burrowing owl conservation strategies. Indirect effects on Swainson's hawk will be minimized through the implementation of AMM18 Swainson's Hawk (Appendix 3K in the Final EIR/EIS) and mitigation for the species is described under Chapter 3, Section 3.3, Biological Goals and Objectives, of the BDCP and Resource Restoration and Performance Principles SH1 and SH2 for the Preferred Project of the Final EIR/EIS. The western burrowing owl AMM23 includes the potential for passive relocation which is consistent with the current California Department of Fish and Wildlife guidelines. AMM23 Western Burrowing Owl states that relocation will not occur without CDFW approval of a burrowing owl exclusion plan. For more information on the various species, please see Section 4.3.8.2 on Wildlife Species.</p> |

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| 1562 | 82 | <p>[From ATT 2:]</p> <p>Construction Impacts on Wildlife</p> <p>Background. This has been a major discussion topic for the Working Group. The project now includes strengthened mitigation measures and provides for advance creation of supercharged foraging areas for greater sandhill crane (gsc).</p> <p>Reference: Items 6, 10 and 18 of Stone Lakes Working Group Summary</p> <p>Impacts: Stone Lakes Working Group focus has been on gsc impacts. Construction noise, particularly the pile driver at the intake construction site, will be significant. Lighting and traffic are additional impacts. See Item 10 reference above for more information.</p> <p>Mitigation: Mitigation takes two forms: Avoidance and Mitigation Measures (AMM's) that are part of the BDCP plan and creation of "supercharged" alternative foraging sites. The AMMs focus on how construction will adapt to minimize impacts. The second type of mitigation is specific to gsc and represents an attempt to provide alternative foraging opportunities ("supercharging") in advance of construction to provide close by option for cranes disrupted by construction activity.</p> <p>Outstanding Issues. With respect to the AMMs, we have asked for narrower construction windows and to minimize crane impacts, but DWR does not want to further limit construction flexibility. The Avoidance and Mitigation Measures are squishy -- lots of "if feasible" language. The mitigation for the construction impacts is incorporated into the AMM's of the plan -- not specifically as mitigation measures of the EIS. We think the mitigation will be stronger if it is included in both the Plan and the EIS.</p> <p>We still have some questions regarding Attachment 5JD to the plan "Indirect Effects of construction of the BDCP Conveyance Facility on Sandhill Crane". We need to try to address these questions at our next meeting. Regarding the "supercharged" advance-mitigation foraging sites, we still have questions about the specificity of the timing requirements. We hope to pin down timing in subsequent discussion.</p> <p>Position: We believe that mitigation measures that include "if feasible" language are unenforceable and inadequate. We also request that AMMs listed in the BDCP also be identified as mitigation measures in the environmental document. We will continue to press the need for clear and detailed language on how and when "supercharged" sites will be created and a monitoring and adaptive management plan prior to commencement of construction. We remain concerned about the separation of pile driver and other construction noise impacts in the analysis of noise impacts on sandhill cranes and other species in BDCP Appendix 5JD.</p> | <p>The commenter's opinion regarding the use of mitigation measures rather than citing the AMMs that are part of the plan is noted. The commenter's concern regarding the timing of supercharged sites has been addressed in AMM20 Greater Sandhill Crane, which provides the language that supercharged sites will be developed one season prior to construction disturbance. The adaptive management and monitoring plan is currently being developed. Pile driver impacts have been combined with the general impacts (rather than provided separately as is the commenter's concern) in Appendix 5.D of the BDCP. Furthermore, the AMM (Avoidance and Minimization Measures) are part of the BDCP and designed to guide the implementation of covered activities and ensure consistency with the Biological Goals and Objectives identified in the Plan and be consistent with the requirements of an HCP/NCCP. For the purposes of the EIR/EIS, the AMMs are part of the Plan itself and are not measures identified by the EIR/EIS to reduce an impact of the Plan. Please see response to comment 1562-82.</p> |
| 1562 | 83 | <p>[From ATT 2:]</p> <p>Truck traffic on Hood Franklin, Lambert and Twin Cities Roads</p> <p>Background: This impact has only been discussed in passing with the working group in the context of impacts on roosting cranes near Hood Franklin Road.</p> | <p>See responses to comment 1562-34. The Draft EIR/EIS terrestrial analysis did not specifically address how increased traffic on specific roads affects wildlife but did discuss how construction traffic has a potential to result in injury and mortality. AMM20 has been revised to include a measures to reduce the visual and noise effects from construction traffic on roosting cranes along Hood Franklin Road, which states:</p> <p>Install a vegetation screen or other noise and visual barrier along the south side of Hood Franklin Road along the length of Stone Lake National Wildlife Refuge's property to reduce disturbance to sandhill cranes. The</p> |

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| | | <p>Reference: Items 4 and 10 of Stone Lakes Working Group Summary</p> <p>Impacts: The traffic analysis for the project predicts that during the peak month of construction traffic will increase on Hood Franklin Rd past the Refuge hq by over 900 trips per hour between 6 am and 6 pm. The trips are primarily truck trips. This represents an average of 15 one-way truck trips per minute all day long. The analysis notes that this is below Service level C, which represents the threshold level of significance. The increase in traffic along Lambert Rd is slightly more, about 950 trips per hour. The truck traffic increase on the River Road near the Refuge will be between 750 to 900 trips per hour. Traffic along Twin Cities Road will increase much less significantly, on the order of 180 to 200 trips per hour. Predicted truck traffic levels on two-lane Lambert and Hood Franklins is likely to be roughly equivalent to traffic on four lane Interstate 5 during high truck traffic periods along the interstate.</p> <p>We note however: the study does acknowledge that the assumptions used in the traffic study were conservative -- they represent a worst-case scenario. Nevertheless, the purpose and intent of the EIS process is to mitigate for the worst-case scenario.</p> <p>The length of time that these peak volumes will last is unclear from reading the document. The information may be there but it is hard to ferret out. The traffic likely consists largely of dredged and excavated material from the intake construction sites. It could very well be that high traffic levels will last from 1 ½ to 2 years, possibly longer. The tunnel digging operation will not contribute significantly to the ongoing traffic increases since material will be transferred to the nearby storage areas by conveyor belt.</p> <p>We have as yet not found specific acknowledgment of the traffic impacts in other chapters of the EIS. There is only general reference to the impacts of traffic on recreation. Modeling for noise level impacts presumably took traffic volumes in the traffic study into account.</p> <p>The impact to wildlife of increased truck traffic on Lambert and Hood Franklin road is not acknowledged specifically (that we have found so far). Foraging and roosting birds will likely adjust to the traffic as they do for traffic along Interstate 5. The increased truck traffic will enhance the barrier effect of the roads through the refuge and will likely increase mortality for various species that are particularly active early and late in the day, including snakes, turtles, river otters, coyotes, mink, rabbits. Also, truck traffic will increase as a result of maintenance activities at the three intakes. Although some of the activities will be done in the river itself, there will be an increase in vehicular traffic for operations and maintenance that has not been addressed.</p> <p>We think that the high level of truck traffic will significantly interfere with the visitor's experience at the Blue Heron Trails area. Hunter experiences at Sun River will also be impacted. The aesthetics of visiting the refuge will be impacted both visually and audibly. There is a reasonable expectation that some truck drivers will turn into the Refuge parking area to use what will likely be the most convenient restroom facilities on the haul route. There will also be increased safety risks for staff, volunteers, school buses and visitors entering and leaving the Refuge.</p> <p>Mitigation: The EIR/EIS proposes as mitigation measures traffic management plans that appear to be applicable only where level of service (LOS) C is exceeded. No specific</p> | <p>noise and visual barrier will be a minimum of 5 feet high (above the adjacent elevated road, if applicable) and will provide a continuous surface impenetrable by light. This height may be obtained by installing a temporary structure, such as fencing (e.g., chain link with privacy slats) or a semipermanent structure, such as a concrete barrier (e.g., a roadway median barrier or architectural concrete wall system) retrofitted with an approved visual screen, if necessary, to meet the required height. This barrier will not be installed immediately adjacent to crane foraging habitat, and placement will be coordinated with a qualified crane biologist approved by the wildlife agencies.</p> <p>This measure would serve to route wildlife wishing to cross Hood Franklin toward the overcrossing of the canal that links the Stone Lakes properties. The overcrossing includes strips of terrestrial habitat on either side of the canal.</p> <p>Mitigation Measure TRANS-1b would limit hours or amount of construction activity on congested roadway segment. In addition, Mitigation Measure TRANS-1c requires the project proponents 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 in Chapter 19, Transportation.</p> |

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| | | <p>mitigation has been discussed with the Working Group.</p> <p>Position: The EIR/EIS is deficient in looking at truck traffic levels primarily as a LOS issue. Guidance on LOS not being the only metric is being developed at the state level by the Office of Planning and Research that may be helpful on this point. We want to know the extent and duration of increased truck traffic on key roads through the Refuge boundary. We want a discussion on the impacts of truck traffic on refuge operations and visitor experience. We recommend considering wildlife corridor construction as a mitigation measure. We recommend funding or contributing to funding of native screen tree planting along Hood Franklin Road opposite Blue Heron Trails, construction of an additional trail south of Blue Heron Trails and farther from the noise impacts of the road, and construction of a safer access point to the Sun River recreation site as mitigation measures to reduce truck traffic impacts on the Refuge.</p> | |
| 1562 | 84 | <p>[From ATT 2:]</p> <p>Impacts of Power Transmission Lines</p> <p>Background: Information regarding the location and sizing of power transmission lines has evolved slowly. The current plan is for a permanent 230 kV line that would bring power along Lambert Road from a tie-in east of Interstate 5 to a substation somewhere west of the railroad levee/borrow pit west of South Stone Lake. Temporary (10 or so years) 69 kV lines would run north from the substation to supply power to the intake construction sights.</p> <p>Reference: Items 8, 19 and 20 of Stone Lakes Working Group Summary</p> <p>Impacts: The primary wildlife impact of the transmission lines will be bird strikes. Gary Ivey has done an analysis of bird strike risks and concluded that greater sandhill cranes are the only species of concern that will be exposed to significant bird strike risk. He has quantified the loss of greater sandhill crane (gsc) to bird strikes on project transmission lines. There are also visual impacts and construction impacts associated with power lines, but these have not been a focus of discussion with the Working Group.</p> <p>Mitigation: The BDCP proposed to put bird diverters on new and existing power lines and to eliminate some power lines in high risk areas (primarily around Staten Island) to mitigate for greater sandhill crane take.</p> <p>Outstanding Issues: Stone Lakes Friends' concern is that the mitigation for cranes bird strikes will occur outside of the Stone Lakes area where most of the impact will occur. Stone Lakes' population of gsc is smaller, more recently established, and more vulnerable to disruptive impacts. We also believe that other birds besides cranes will die as a result of the new transmission lines.</p> <p>More importantly, we have argued that the transmission line alignment selection process is inadequate and has not yet evaluated colocation and/or undergrounding of power lines. The evaluation of transmission lines by the three potential power suppliers (SMUD, PGE and WAPA) has just begun and substantial changes in alignment and design are possible. It is uncertain whether additional environmental analysis will be required.</p> | <p>The commenter has provided the meeting minutes from a BDCP Stone Lakes National Wildlife Refuge meeting. Although the comment applies to the BDCP itself, the EIR/EIS addresses many of the concerns stated within these comments. See responses to comments 1562-21 through 27.</p> <p>The commenter states that bird diverters alone are not sufficient mitigation for birdstrike and that other measures such as colocation and undergrounding of lines should be considered. DWR has agreed to prepare a report on feasibility of undergrounding and DWR will continue to analyze the feasibility of undergrounding powerlines. In addition, AMM20 has been updated and allows for a number of minimization and mitigation measures to meet the performance standard of no take of greater sandhill crane associated with new transmission lines. The performance standard will be accomplished by one or any combination of the following:</p> <ul style="list-style-type: none"> • Design the transmission line alignment to minimize risk. When locating powerlines, choose specific site locations that are in low risk zones or outside of the Greater Sandhill Crane Winter Use Area. • Remove, relocate or underground existing lines. Reduce the number of existing lines in risk zones to offset placement of new lines in risk zones. Prioritize elimination or reduction of existing lines and avoidance of new lines in the highest risk zones. • Use natural gas generators in lieu of transmission lines in high-risk zones of the greater sandhill crane winter use area to provide power for the construction of the water conveyance facilities. • Install bird strike diverters on existing lines in high-risk zones. Bird diverters will be required on existing lines within the crane use area. The length of existing line to be fitted with bird strike diverters will be equal to the length of new transmission lines constructed as a result of the project, in an area with the same or higher greater sandhill crane strike risk to provide a net benefit to the species. Bird diverters will also be required on all new lines. For optimum results, the recommended spacing distance for bird flight diverters is 15 to 16.5 feet (4.5 to 5 meters) (Avian Power Line Interaction Committee 1994). Bird strike diverters will be installed on project and existing transmission lines in a configuration that research indicates will reduce bird strike risk by at least 60% or more. Bird strike diverters placed on new and existing lines will be periodically inspected and replaced as needed until or unless the project or existing line is removed, or are otherwise no longer a strike risk for greater sandhill cranes. The most effective and appropriate diverter for minimizing strikes with greater sandhill crane on the market according to best available science will be selected. • Manage habitat to shift cultivated land roost site locations away from risk zones created by new |

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| | | <p>Position: We continue to stress the significance of new major power lines as incompatible use in and around a National Wildlife Refuge. We believe that bird diverters alone are not adequate mitigation and that other birds besides gsc will also be impacted. We advocate that the EIR/EIS not be approved until utilities that will be providing power to the project have prepared alternative alignment studies and evaluated their comparable impacts.</p> | <p>transmission lines. This can be accomplished by not flooding past or current roosting sites located in the vicinity of the new transmission line, thereby eliminating the sites' attractiveness as roosting habitat; and establishing new roost site equal or greater in size at new location in a lower risk zone but within 1 mile of the affected site. The relocated cultivated land roost site will be established prior to commencement of the wintering season that occurs prior to construction of new transmission lines. The existing cultivated land roost site will be flooded during the wintering season prior to construction; it will not be flooded during the wintering season that occurs during the year construction begins. A wildlife agency-approved, qualified biologist familiar with crane biology will design the new roost site and direct implementation of the roost site establishment.</p> <ul style="list-style-type: none"> • Final transmission line design will be determined in coordination with the wildlife agencies and wildlife agency-approved, qualified biologist familiar with crane biology • During the final powerline design process, undergrounding of all new permanent powerlines will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. • Upon approval by the power providers, bird diverters will be installed on all new temporary and permanent powerlines, following Avian Power Line Interaction Committee protocols. These diverters will be maintained for the entire period that the lines are in place. This may contribute toward meeting the performance standard of no take of greater sandhill crane associated with the new facilities. • All new above-ground powerlines will be at least 300 feet from all crane roost sites. <p>Please see Master Response 17 regarding the Sandhill Crane.</p> <p>The commenter also states concern that mitigation will occur outside of the Stone Lakes area. Mitigation will be focused around high-risk areas for greater sandhill crane as this is where the subspecies will benefit most from the compensation. However, as described above, all new transmission lines will be fit with bird diverters and other methods such as undergrounding transmission lines, using natural gas generators, and designing the final alignment will be evaluated throughout the project area, not only within the vicinity of Staten Island.</p> <p>The commenter also states concerns that birds other than cranes are at risk of birdstrike from the installation of new transmission lines. A bird-strike analysis was conducted for multiple species as part of the BDCP which concluded that birdstrike potential was not significant for other species that were covered under the BDCP. The EIR/EIS addresses the impact of birdstrike for all avian species, analyzing factors such as flocking behavior, flight, wing shape, and movement patterns. The implementation of the measures proposed in AMM20 are expected to reduce the risk of birdstrike on avian species to a less-than-significant impact.</p> |
| 1562 | 85 | <p>[From ATT 2:]</p> <p>Mitigation is Limited to the Bay Delta Legislative Boundary</p> <p>Background: From the start of their process, the BDCP planning team has limited consideration of impacts to the legislative boundary of the Delta, which is the boundary of the BDCP. However, this HCP includes major infrastructure projects at the edge of -- and, in the case of the power transmission lines -- outside of the plan area. The peripheral tunnel will have spillover impacts outside of its planning area.</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> <p>Under Alternative 4A, the proposed project limits are not required to be within the Delta Boundary and the project area as defined in Chapter 3 of the EIR/EIS and depicted in project figures includes the transmission</p> |

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| | | <p>Reference: Items 5 and 7 of Stone Lakes Working Group Summary</p> <p>Outstanding Issues: the Stone Lake Friends have argued that the impacts of the peripheral tunnel (CM-1) are concentrated at the northwest corner of the Delta around the Refuge and that mitigation needs to be proportionately located near the Refuge. We have also argued that the acquisition of fee/easement habitat to mitigate for the BDCP is in direct competition with the South Sac HCP, that both plans should be designed to work in concert, and that both plans would benefit by greater flexibility in protecting land outside the Delta boundary. We have gained some commitment to additional habitat protection in the Stone Lakes area but DWR is unwilling to consider any allowance of mitigation outside the Delta boundary.</p> <p>Position: We continue to argue that the power line transmission component of CM-1 is outside the Delta Boundary and that either the plan area should be expanded or mitigation should be allowed outside the boundary, at a minimum for any impacts attributable to the transmission line corridor.</p> | <p>line corridors. Under Alternative 4A, there is no limit or requirement that all mitigation take place within the Delta, though most conservation action will likely occur in the Delta.</p> |
| 1562 | 86 | <p>[From ATT 2:]</p> <p>Monitoring and Implementation Follow Through</p> <p>Background: The BDCP is a very complicated document with many thousands of acres of habitat being converted to other uses and then other lands protected and changed to allegedly meet a wide variety of species habitat requirements. We have not discussed or examined the details of implementation and monitoring, yet this remains a potential critical weak link in the BDCP.</p> <p>Reference: Item 26 of Stone Lakes Working Group Summary.</p> <p>Impacts: Not relevant</p> <p>Outstanding issues: Availability of funding to implement the plan is a critical weak link in the whole scheme. While the multi-billion dollar tunnel project will be funded by the water contractors with revenue bonds that do not require voter approval, the multi-billion dollar habitat component of the plan will require voter approval and other state and federal funding allocations that are highly uncertain. It is reasonable to expect that plan approving agencies (DFW and USFWS) will not have the political will to halt the tunnel construction and operation even if habitat measures are not adequately funded.</p> <p>Implementation monitoring is proposed to be a multi-level process that will undoubtedly be bogged down in bureaucracy. The contracting agencies will have a major role in monitoring. The overall effectiveness of monitoring is questionable.</p> <p>With respect to wildlife impact monitoring, Refuge staff have suggested that local managing agencies, where appropriate, be given specific wildlife monitoring responsibilities and funding.</p> <p>Position: As previously mentioned, we will recommend that all AMMs that address CM1 impacts be included also as mitigation measures. We also recommend that it be clear that funding of AMM's and their monitoring will be by the water contractors. We advocate that the Refuge (and other wildlife management entities in the Delta) be given specific</p> | <p>Please see Master Response 22 regarding ECs, AMMs, and mitigation measures. Please see Master Response 5 regarding funding for the BDCP.</p> |

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| | | monitoring responsibilities and funding to undertake them. | |
| 1562 | 87 | <p>[From ATT 2:]</p> <p>Other Issues of Concern:</p> <p>Background: We have discussed a number of other issues during the course of the Stone Lakes Working Group meetings that DWR/ICF has committed to explore further. These include the suggestion that the borrow/spoil site be converted to foraging or roosting habitat after its use (Issue 2), Overlap of the Restoration Opportunity Area for creating tidal wetlands with the Zacharias Island property (Issue 3), and additional provisions for locating new roosting sites away from incompatible activities associated with vineyards (Issue 24).</p> <p>We have yet to discuss groundwater impacts, and these remain a concern: maximum impacts are stated as -40 foot elevation change (Mr. Centerwall). The impacts are concentrated around the intakes, and will likely impact SP Cut Waterway. Although impacts to wells are addressed, impacts to the level of water in SP Cut and Refuge wetlands, are not addressed in the document. Pumping structures that are within the zone of impact include: Lewis Tract, North Irrigated Pasture, South Irrigated Pasture, and possibly BLMB. Are there no dewatering impacts associated with the construction of the forebay?</p> <p>Finally, we would like to see an evaluation of air quality, water quality and water availability impacts associated with concrete batch plants at intake locations and on Twin Cities and I-5.</p> <p>Reference: Items 2, 3 and 24 of Stone Lakes Working Group Summary</p> <p>Position: We do not want to leave these issues hanging before completion of the working group's effort.</p> | <p>As explained in the EIR/EIS, the greatest potential for impacts to groundwater will be during the construction of the intake facilities, pump stations, forebays, and tunnel shafts. It is anticipated that construction of these facilities will require some type of groundwater dewatering immediately adjacent to the construction site while construction activities are underway. For the tunneling work itself, it is anticipated that groundwater presents minimal risk to the project since the tunneling work will be conducted with equipment that is specifically designed to operate under high groundwater conditions. Hence localized dewatering along the tunnel alignment will not be conducted as a regular component of the tunnel mining operation. Localized dewatering along the alignment will be used only in the event of certain maintenance activities, or specialized construction conditions. Geotechnical exploration work is planned in advance of dewatering well installation so that the groundwater regime at each project site can be better understood, which in turn will allow each dewatering system to be uniquely designed and operated in order to limit construction-related effects to the groundwater user adjacent to the construction sites.</p> <p>Mitigation Measure GW-1 requires DWR to have a groundwater monitoring and management plan (Plan) in place before construction begins. The Plan will include a process by which baseline groundwater conditions are established along the project corridor, defining groundwater monitoring during and after construction, and establishing specific measures to be utilized. The establishment of groundwater baseline information will allow DWR and all relevant parties to develop information on groundwater conditions and consumptive usage patterns. This information will aid in preventing adverse project-related effects to the groundwater during construction activities occur. The baseline monitoring process may include determining variables such as seasonal changes in groundwater level elevations and water quality, the interface of groundwater with surface water and drainage, consumptive usage patterns established by municipal, domestic, and agricultural wells, and crop utilization of the groundwater, as necessary. The timing, frequency, and duration of the monitoring during and after construction would be determined before construction begins and will be dependent, in part, on the results of the pre-construction monitoring and the documented use of each resource.</p> <p>Specific measures that may be considered to minimize impacts could include deepening of existing wells, the installation of new wells, or providing an alternate source of temporary water. The most appropriate mitigation methodology applied will be determined on a case by case basis in conjunction with the impacted party. For more information see Mitigation Measure GW-1 in Appendix A Chapter 7 Groundwater.</p> <p>Please see comment 1562-44 on concrete batch plants.</p> |
| 1562 | 88 | [ATT 3: Exhibit C. Stone Lakes National Wildlife Refuge Technical Workgroup Meeting Agenda at ICF. June 5, 2014.] | This comment describes an attachment to the comment letter that does not raise an environmental issue but represents a meeting agenda from 2014. |
| 1562 | 89 | [ATT 4: Exhibit D. Table of Remaining Crane Tasks by ICF. April 22, 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 the comment referencing the attachment or the Final EIR/EIS. |
| 1562 | 90 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Objective GSHC1.5: Create an additional 95 acres of roosting habitat within 2 miles of existing permanent roost sites. The habitat will consist of active cornfields that are flooded following harvest to support roosting cranes and that provide highest-value</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> <p>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. After release of</p> |

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| | | <p>foraging habitat. Individual fields will be at least 40 acres and can shift locations throughout the Greater Sandhill Crane Winter Use Area, but will be sited with consideration of the location of roosting habitat loss and will be in place prior to roosting habitat loss.</p> <p>Comments and response:</p> <p>RE 2 miles: 1 mile would be better. And there should be a minimum one-year overlap, i.e. new roost area should be in place 1 year before loss of existing roost area. [eb] will discuss this modification with the TTT.</p> <p>RE active cornfields: What is definition of "active" cornfield? Cranes utilize cornfields harvested for grain, but there is little left for cranes in silage fields. [eb] this level of detail will be developed in CM11.</p> | <p>the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 91 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Objective GSHC1.2 Rationale: Achieving this objective will enhance or create foraging habitat by requiring that 10% of the lands protected under GSHC1.1 be converted from an initial low- or no-value crop type to a high- or very high-value crop type (Error! Reference source not found.). Requiring that 10% (730 acres) of the crane reserves be created or enhanced by converting unsuitable crops to high-value crops will help to redress the past conversion from high-value to low-value crop types. The strategy involves targeting lands least vulnerable to sea level rise in Conservation Zones 3, 4, 5, and/or 6, which are zones in the Plan Area that include the Winter Use Area and do not include the lands most vulnerable to sea level rise. Sea level rise and local seasonal flood events will be considered when identifying siting conservation lands because crane foraging habitat is likely to become unsuitable at lower elevations with sea level rise as these areas become flooded due to sea level rise. Additionally, crane habitat may periodically become unsuitable as a result of large flood events (100 year events) within river floodplains.</p> <p>Comments and response:</p> <p>Does this really accomplish anything when so much conversion is occurring? In the end, is not the goal to have the greatest number of acres of high value habitat in proximity to roosting? Has anyone analyzed if using the additional expense for re-conversion would be better spent acquiring more land to begin with? What is gained if a lot of money is spent to re-convert when perfectly suitable high quality habitat is simultaneously being converted by others to vineyards? Vineyards and orchards should be purchased and re-converted when no other suitable acres are available. [eb] will discuss with TTT</p> <p>Stone Lakes National Wildlife Refuge Association (SLNWRA) added "100 year events". I questioned whether this was what we were going for.</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 92 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Objective GSHC1.5 Rationale: This objective addresses the loss from covered activities of</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>winter-flooded cornfields that serve as both roosting habitat and highest-value foraging habitat within the Greater Sandhill Crane Winter Use Area. This type of crane roosting habitat is usually temporary as a result of seasonal changes in farm practices, crop rotational changes, or other management. This habitat type supplements the more static managed wetlands that serve as the primary roosting areas for cranes. These temporary roosting/foraging habitats allow cranes to vary their seasonal movement patterns and spread out into otherwise underused areas of the Delta; it also would help reduce excessively dense roosting concentrations. Objective GSHC1.5 is designed to provide similar function by allowing fields to rotate through the crane use area within protected cultivated lands. This will serve as a secondary source of high-value crane roosting/foraging habitat and provide a dynamic element to the crane conservation program. This objective is intended to offset loss of crane roosting habitat, and the compensatory roosting habitat will be in place prior to loss of roosting habitat as a result of water conveyance facility construction.</p> <p>Comments and response:</p> <p>It also equally important to allow cranes a second opportunity to feed on the same land as fossorial prey is flushed out because of the flooding. In general, the prey base is ignored in this analysis and the primary production is overemphasized. [eb] These sections are just providing rationale for the objectives. Detail about prey base and land management will be provided in CM11, although this detail has not yet been fully developed.</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 93 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Greater sandhill crane roosting habitat management. Wetland roosts for greater sandhill crane will be managed as follows.</p> <p>Water depth will be maintained throughout the winter season at an average depth of 10 centimeters, but should range across the roost site between 5 and 10 centimeters (lvey et al. in prep.).</p> <p>Flood-up of roosts will begin by September 1 and drawdown will begin no earlier than March 15.</p> <p>Comments and response:</p> <p>The cranes are arriving increasingly early -- August 7th this year. Some adaptive management should be employed here to accommodate earlier arrival times if the trend continues. [eb] will discuss with crane experts</p> <p>MB: The early arrival was a single event thus far, and should not influence the definition of the normal winter season. If in the future the normal winter season changes, adaptive management will be used to adjust.</p> | <p>The commenter provides the notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No changes to Chapter 12 of the Draft EIR/EIS are requested. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 94 | <p>[From ATT 4:]</p> | <p>The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group meeting in which they requested that alfalfa be moved to a medium habitat value category for sandhill cranes. The</p> |

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| | | <p>Language:</p> <p>Alfalfa, irrigated pasture, wheat.</p> <p>Comments and response:</p> <p>New data indicate that greater sandhill cranes rarely use alfalfa (Ivey, pers. Comm.) Recommend moving alfalfa to Medium category. Why was dry pasture of a minimum size not included? [eb] consulting with species experts.</p> | <p>commenter also asks why dry pasture of a minimum size was not included in the habitat model.</p> <p>The habitat value tables for greater sandhill crane have been revised and alfalfa is in the medium category. There is no habitat difference in the species model between grassland, non-irrigated (dry) pasture, and native vegetation. Therefore dry pasture is incorporated into the model through these other categories.</p> |
| 1562 | 95 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Other irrigated crops, idle cropland, blueberries, asparagus, clover, cropped within the last 3 years, grain sorghum, green beans, miscellaneous truck, miscellaneous field, new lands being prepped for crop production, non-irrigated mixed pasture, non-irrigated native pasture, onions, garlic, peppers, potatoes, safflower, sudan, sugar beets, tomatoes (processing), melons squash and cucumbers all types, artichokes, beans (dry).</p> <p>Comments and response:</p> <p>What is the difference between native pasture and grassland? [eb] good question. We never got a satisfactory answer to this from SAIC. It may be worth re-evaluating this classification as it relates to crane.</p> | <p>See response to comment 1562-94.</p> |
| 1562 | 96 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Bulrush/cattail vegetation will be burned, mowed, or disced every 2 to 5 years to remove dead growth and encourage the development of new vegetative structure.</p> <p>Comments and response:</p> <p>What about invasive weed management? [eb] we will add detail in this regard, as needed, based on input from species experts.</p> | <p>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. The prevalence of non-native species in the Delta is described in 2013 Public Draft Section 2.3.4, where each natural community description contains a subsection describing the prevalence and ecological consequences of non-native species in that natural community. The proposed project will incorporate existing Conservation Measures from the BDCP as Environmental Commitments (ECs) to further address the issue of non-native species (RDEIR/SDEIS Appendix 3B Section 3B.5). EC 11 Natural Communities Enhancement and Management describes how non-native vegetation will be disturbed or removed. Restoration ECs may have non-native weed control through operation and maintenance of restored sites (EC 3, 4, 7, 8, 9, 10).</p> |
| 1562 | 97 | <p>[From ATT 4:]</p> <p>Language:</p> <p>The area outside the Stone Lakes National Wildlife Refuge but within the refuge project boundary (the area for which the refuge has authority to acquire land or easements) has largely been converted to vineyards, which do not provide habitat for cranes. Additional areas within the Project Boundary and surrounding lands are threatened by future conversions to vineyards as well. These past conversions have created an approximately 4-mile gap between wintering crane roost and foraging sites in the Stone Lakes and Cosumnes areas. Creating two wetland complexes no more than 2 miles apart in this area will expand roosting and foraging opportunities for cranes provide thus improving habitat connectivity between the Stone Lakes Basin and Cosumnes River Preserve crane</p> | <p>The commenter provides notes from a meeting with the Stone Lakes National Wildlife Working Group. No changes are requested to Chapter 12 of the draft EIR/EIS.</p> |

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| | | <p>populations. These wetland complexes It will also ensure that conservation occurs in the vicinity of conveyance facility impacts, to offset disturbance losses that might otherwise cause some cranes to leave abandon the area, and in an area where the crane population is already constrained by urbanization to the east and sea level riseland conversion and future sea level rise to the west. Conserved lands within the Stone Lakes NWR Project Boundary will be transferred to the refuge to ensure management consistent with the rest of the refuge lands, therefore contributing to a regional management strategy for the crane.</p> <p>Comments and response:</p> <p>Do we need to address issue of reverter clauses, etc. that may potentially be in deed documents. What about endowments to manage the land? [eb] the reverters clause issue can be discussed at future Stone Lakes meeting. A regional HCP/NCCP does not have endowments for individual properties - instead, the overall funding mechanism for the HCP/NCCP will be used to fund management of the lands. USFWS needs to make a finding that sufficient funding is assured before they can approve the plan.</p> | |
| 1562 | 98 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Crops with minimum acquisition requirements will need to be rotated to other crops types periodically. Based on previous use patterns, the reserve system is expected to always have enough land in nonessential crops (e.g., irrigated crops other than alfalfa, rice, or corn) to allow for rotation into essential crops to ensure that minimum standards for these essential crops are met. Land cultivation patterns will be monitored to determine the extent to which the needs of each covered species are being met at any point in time.</p> <p>Comments and response:</p> <p>The feasibility of this approach should be vetted with farmers. [eb] agreed. This may occur in the context of the crane toxic air contatminants.</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> <p>The described approach was a product of the cultivated lands working group, which is to say, farmers were involved in the process. See Draft BDCP Chapter 3, description of Conservation Measure 3, which discusses acquisition of lands for the reserve system. As described there, lands acquired other than in fee title (e.g. through conservation easements) would be subject to agreements with the landowners. That would provide the forum for developing site-specific assessments of the practicability of mitigation on any given parcel of land.</p> |
| 1562 | 99 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Emergency Spillway Associated with Glannvale Tract Forebay</p> <p>An emergency spillway will be constructed in association with the intermediate forebay on the Glannvale tract. This spillway will prevent the intermediate forebay from overtopping by spilling into the approximately 125-acre inundation area. This area will only be flooded under emergency conditions, which are expected to be seldom if ever. Therefore, the basin will be cultivated and managed to provide roosting and foraging habitat for greater sandhill crane as described below in Enhancement and Management Guidelines and Techniques, Timing and Flooding for Sandhill Crane. Providing crane habitat in this area will not count toward the habitat targets under Objectives GSHC1.1 through GSHC1.5, because perpetual conservation cannot be guaranteed, as the spillway will be needed to prevent forebay overtopping in emergency situations. Rather, this</p> | <p>The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group Meeting. The commenter is asking if the emergency spillway will affect roosting cranes. While the emergency spillway basin could provide foraging habitat for cranes, it doesn't provide any roosting habitat. Language regarding roosting habitat associated with the spillway has been removed from the document.</p> |

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| | | <p>additional greater sandhill crane habitat to be provided in the spillway will be above and beyond the minimum habitat requirements stipulated in the biological objectives for the crane.</p> <p>Enhancement and Management Guidelines and Techniques</p> <p>Comments and response:</p> <p>Seems fine for foraging, but under what conditions could this impact cranes roosting? [eb] Will discuss with crane experts.</p> | |
| 1562 | 100 | <p>[From ATT 4:]</p> <p>Language:</p> <p>In addition to the presence of water, food availability, and loafing opportunities, selection of roosting sites by greater sandhill cranes is based in part on predator avoidance. Therefore, the development of the ponds and checks will consider the ability of predators to access roosting cranes along checks and levees.</p> <p>Comments and response:</p> <p>These factors are correct; how will the checks and levees not be highways for foxes and coyotes? [eb] will discuss with crane experts.</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 101 | <p>[From ATT 4:]</p> <p>Language:</p> <p>If covered activities are to occur during greater sandhill crane wintering season (September 15 through March 15) in the Greater Sandhill Crane Winter Use Area (Appendix 2.A, Figure 2.A-19-2), the following avoidance and minimization measures will be implemented.</p> <p>Comments and response:</p> <p>With the last couple of years yielding very early arrivals, this date may need to be re-visited. Also given potential climate change seasonality. [eb] will discuss with crane experts.</p> | <p>The commenter notes that cranes have arrived earlier than September 15th over the past two years. Despite these early arrivals, the definition of the normal winter season is September 15 through March 15. If in the future the normal winter season changes, adaptive management (see Table 3.6-9 in the BDCP) will be used to adjust.</p> |
| 1562 | 102 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Manage habitat to shift cultivated land roost site locations away from risk zones created by new transmission lines. This can be accomplished by not flooding past or current roosting sites located in the vicinity of the new transmission line, thereby eliminating the sites' attractiveness as roosting habitat; and establishing new roost site equal or greater in size at new location in a lower risk zone but within 1 mile of the affected site. The relocated roost site will be established prior to commencement of the wintering season that occurs prior to construction of new transmission lines. The existing roost site will be</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>flooded during the wintering season prior to construction; it will not be flooded during the wintering season that occurs during the year construction begins. A wildlife agency -- approved, qualified biologist familiar with crane biology and experienced with crane habitat management will design the new roost site and direct implementation of the roost site establishment. Monitoring should be incorporated into the management practices.</p> <p>Comments and response:</p> <p>This is a new and unanalyzed impact on the greater sandhill crane. This can cause more harm and lead to greater loss of habitat use. [eb] habitat loss cannot exceed take limits, but we can discuss further with Gary Ivey.</p> | |
| 1562 | 103 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Final transmission line design will be determined in coordination with the wildlife agencies and the approved/qualified crane biologist to achieve the performance standard and ensure the measures described herein are incorporated.</p> <p>Comments and response:</p> <p>Inclusion of wildlife experts in the transmission line negotiation process with the power provider should be required. [eb] The development of this process is in progress.</p> | <p>The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting regarding effects on greater sandhill crane. No changes to Chapter 12 of the draft EIR/EIS are proposed. Please see responses to comments 1562-21 through 27 regarding transmission lines.</p> |
| 1562 | 104 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Powerline Plan and Analysis</p> <p>Prior to powerline construction, the approved/qualified crane biologist will coordinate with the Implementation Office to develop a plan for achieving the performance standard (no net increase in bird strike hazard to greater sandhill crane populations in the Plan Area) using a combination of the measures described above. The plan will include an analysis, using the method described in Attachment 5.J.C, Analysis of Potential Bird Collisions at Proposed BDCP Powerlines, to demonstrate that this standard has been met. The plan and analysis will be subject to review and approval by the wildlife agencies prior to its implementation. Powerline construction will be implemented consistent with this plan.</p> <p>Comments and response:</p> <p>Approved or and/or qualified, by whom: DFW, the Lead Agency? See two bullets above. Please be consistent with nomenclature or identify the change in standard. [eb] This is referring to the biologist described above: "A wildlife agency -- approved, qualified biologist familiar with crane biology and experienced with crane habitat management". But to add clarity, we will stipulate this here.</p> <p>The 800 lb gorilla here that is not mentioned is that process to date has not included a</p> | <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17. Please see responses to comments 1562-21 through 27 for addition information regarding transmission lines.</p> |

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| | | feasibility or cost analysis for the various options, including undergrounding. DWR has simply decided that it need not underground the lines and has not supported that with any analysis. [eb] undergrounding feasibility and cost analysis is in progress. | |
| 1562 | 105 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Use of construction equipment greater than 50 feet in height will be minimized to the extent practicable in light of project schedule and cost and logistical considerations.</p> <p>Comments and response:</p> <p>No avoidance and minimization requirements. And, not enforceable, so meaningless. [eb] we could remove this. Gary Ivey said construction equipment is not really an issue and that this measure is not needed.</p> | The commenter has provided notes from the Stone Lakes National Wildlife Refuge Working Group meetings and discloses concern that the measure restricting the use of construction equipment greater than 50 feet where feasible. |
| 1562 | 106 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Avoid direct construction-related loss of roost sites. Activities will be designed to avoid direct loss of crane roost sites. This can be accomplished by siting activities outside identified crane roost sites or by relocating the roost site if it consists of cultivated lands (roost sites that consist of wetlands rather than cultivated lands will not be subject to relocation). A cultivated land roost site can be relocated by not flooding the site where the impact will occur during years when construction will occur and by establishing a new roost site equal or greater in size at a new location away from the disturbance (outside the 50 dBA Leq [1 hour] noise contour) but within 1 mile of the affected site. The relocated roost site will be established prior to construction activities affecting the original roost site. A qualified biologist familiar with crane biology and experienced with crane habitat management will design the new roost site and direct implementation of the roost site establishment. Efforts to identify and monitor potential sites should be conducted prior to establishment.</p> <p>Comments and response:</p> <p>This is still unclear in terms of when relocation will be implemented. There is also not clear evidence that relocation of roost sites will be successful. The creation and re-occupancy of new sites can take several years if it happens at all. [eb] further detail is being developed. Will discuss this comment with Gary Ivey, who has indicated that cranes will readily shift their roosting locations to where habitat is suitable, if it is in the near vicinity.</p> | The commenter questions the relocation of crane roost sites. See response to comment 1562-102 regarding the success of roost site relocation. Language has been added to AMM20 Greater Sandhill Crane (Appendix 3B of the Final EIR/EIS) that stipulates that new roost sites will be established one season prior to construction disturbance. |
| 1562 | 107 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Avoid and minimize construction-related noise effects on roost sites. Activities within 0.75 mile of crane roosting habitat will reduce construction noise during nighttime hours (from 1 hour before sunset to 1 hour after sunrise) such that construction noise levels do not</p> | The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group Meeting which includes their comment that measuring 50 dB of sound averaged over an hour is not an appropriate protective measure for cranes. The USFWS standard is 60 dBA for effects to greater sandhill crane. 50 dBA is considered a very conservative threshold given that is the assumed existing background dBA in this region of the Delta that experiences moderate to heavy traffic. Language was added to the AMM that makes it clear that the 50dBA threshold will include both pile-driving and general construction noise. |

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| | | <p>exceed 50 dBA Leq (1 hour) at the nearest temporary or permanent roosts during periods when the roost sites are available (flooded). This can be accomplished by limiting construction activities that could result in noise levels above 50 dBA Leq (1 hour) at the roost site to day time only (from 1 hour after sunrise to 1 hour before sunset); siting nighttime project activities at a sufficient distance from crane roost sites to ensure that construction noise levels do not exceed 50 dBA Leq (1 hour) at the roost site; relocating cultivated land roost sites as described above; and/or installing noise barriers between roost sites within the 50 dBA Leq (1 hour) contour and the primary construction noise source areas, such that construction noise levels at the roost site do not exceed 50 dBA Leq (1 hour). The installation of noise barriers will be used only if the first three options cannot be implemented to the extent that noise levels do not exceed 50 dBA Leq (1 hour) at the roost site.</p> <p>Comments and response:</p> <p>See above. 50 rolling-averaged over an hour is not a protective measure by any definition. Substantiation for this measure based on greater sandhill crane biology would be necessary to support its effectiveness. [eb] see response above. But perhaps we can discuss using peak noise but at a higher dBA than 50?</p> | |
| 1562 | 108 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Screen all lights and direct them down toward work activities and away from the night sky and nearby roost sites.</p> <p>Comments and response:</p> <p>The typical temporary construction lights have several problems that need to be addressed here. The first is generator noise, the second is the lack of light control on the fixtures, and the third is the ease by which these can be misdirected. This section needs much greater detail and enforceable specificity. [eb] noise will be addressed through the above measures. Regarding light misdirection, we can stipulate that biological construction monitor will monitor to ensure lights are properly directed at all times.</p> | <p>The commenter has provided notes from the Stone Lakes National Wildlife Refuge Working Group meetings. The commenter requests clarification regarding noise and how light screening and direction will be enforced. Noise effects will be addressed through the measures provided in AMM20 Greater Sandhill Crane. Language has been added to AMM20 Greater Sandhill Crane to require a biological monitor during construction to ensure that lights are properly directed at all times.</p> |
| 1562 | 109 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Install a visual barrier along portions of access routes where screening would prevent excessive light spill toward roost sites from truck headlights being used during nighttime construction activities. These visual barriers will meet the following performance criteria: The visual barrier will be a minimum of 5 feet high and will provide a continuous surface impenetrable by light. This height may be obtained by installing a temporary structure, such as fencing (e.g., chain link with privacy slats) or a semi-permanent structure, such as a concrete barrier (e.g., a roadway median barrier or architectural concrete wall system) retrofitted with an approved visual screen, if necessary, to meet the required height. These barriers will not be installed immediately adjacent to crane foraging habitat, and placement will be coordinated with a qualified crane biologist approved by the wildlife</p> | <p>The commenter has provided notes from the Stone Lakes National Wildlife Refuge Working Group meetings. The commenter requests more substantial protection for sandhill cranes from potential visual effects of light during night time construction activities. These measures have been added to AMM20 and include additional measures such as committing to light shielding to keep lights pointed downward, implement light barriers for horizontal reflection of light off equipment, and ensuring that barriers are close to the light sources (AMM20 Greater Sandhill Crane, (Appendix 3B, Final EIR/EIS).</p> |

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| | | <p>agencies.</p> <p>Comments and response:</p> <p>This is a good attempt at a measure. It need more substantive protection, slats on chain link provide some glare protection but almost no abatement. Five feet needs to be from above the surface of the road, given the typical elevated position of the Delta roads. Otherwise, the measure provides no protection. [eb] we will be further developing this measure prior to the final draft.</p> <p>What is minimum distance to habitat? [eb] we will be further developing this measure, including minimum distance, prior to the final draft.</p> | |
| 1562 | 110 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Remove reusable tunnel material (RTM) from Staten Island periodically during construction to minimize the RTM footprint.</p> <p>Comments and response:</p> <p>Muck should be moved only outside of greater sandhill crane use season. [eb] will discuss with DWR and crane experts.</p> | The commenter asks that in regard to Staten Island, muck only be removed outside of the greater sandhill crane use season. The lead agencies have redesigned the construction footprint for Alternatives 4 and the new Alternative 4A (see Recirculated Draft EIR/Supplemental EIS), and there is no RTM placement or storage on Staten Island. |
| 1562 | 111 | <p>[From ATT 4:]</p> <p>Language:</p> <p>(Staten Island) Prioritize placement of facilities and reusable tunnel material (RTM) in areas of no or low crane use. For example, the very northern end of Staten Island is an area of low crane use that would be a high priority for placement of facilities and RTM.</p> <p>Comments and response:</p> <p>Footnote underestimates impacts based on lighting and noise. Averages and trend analysis need to use appropriate statistics to make loss calculations. [eb] conservative estimates will be used and monitoring will be conducted during construction to assess actual effects. We will be further developing the monitoring and adaptive management program to provide assurance that standard will be met.</p> | Please see response to comment 1562-110. |
| 1562 | 112 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Water Conveyance Facility Construction</p> <p>The water conveyance facility and associated features as designed would result in the permanent removal of approximately 2,728 acres of greater sandhill crane habitat, including 29 acres of temporary roosting and foraging habitat and 2,699 acres of foraging habitat (Error! Reference source not found.). The temporary roosting and foraging habitat that would be permanently lost is located on Zacharias Island; the loss is a result of</p> | The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting. No changes to Chapter 12 of the EIR/EIS are requested. |

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| | | <p>installation of a transmission line and associated access road. However, AMM20 Greater Sandhill Crane (Appendix 3.C) requires that the final transmission line alignment be designed to avoid crane roost sites; therefore, there will be no loss of crane temporary roosting and foraging habitat as a result of water conveyance facility construction once the facility is fully designed.</p> <p>Comments and response:</p> <p>Fully constructed or designed? [eb] this speaks to the fact that the design will be modified between public review and final, and that the current footprint doesn't meet this standard but the Avoidance and Mitigation Measures (AMMs) require that it will. This language will change for the final.</p> | |
| 1562 | 113 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Effects in the Cosumnes/Mokelumne Restoration Opportunity Area (ROA) associated with tidal wetland restoration activities occur in low-value cultivated lands that are restored to become tidal wetlands. To be conservative, these effects are counted as a permanent loss of sandhill crane habitat. However, tidal wetland restoration may in some cases provide habitat value for cranes.</p> <p>Comments and response:</p> <p>Both of these arguments seem unsubstantiated. How many acres score as low value, and how would tidal have any value to cranes? [eb] We can quantify the amount that is low value. Jim Estep indicated that cranes might use muted tidal. We will confer with other crane experts.</p> | <p>The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group Meeting and poses the questions whether tidal wetlands have any value to cranes as habitat. Impacts on low-value habitat have been recalculated under the alignment for the new preferred Alternative (Alternative 4A) and well as for Alternative 4 for the Recirculated Draft EIR/Supplemental EIS. Tidal muted wetland is no longer calculated as habitat for crane.</p> |
| 1562 | 114 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Temporary Habitat Loss</p> <p>Covered activities are expected to temporarily remove 985 acres of modeled habitat (less than 1% of this habitat in the Plan Area). Nearly all the affected habitat is cultivated land. This includes 24 acres of roosting and foraging habitat (16 acres of which is temporary roosting habitat), and 778 acres of foraging habitat. Of the 985 acres, establishment and use of borrow and spoil areas associated with construction of water facilities will result in temporary removal of approximately 183 acres of modeled greater sandhill crane winter foraging habitat (Error! Reference source not found.). Although this habitat will be restored within 1 year following construction, it will not necessarily be restored to its original topography and areas that were originally cultivated lands may be restored as grasslands.</p> <p>Comments and response:</p> <p>This describes permanent losses as temporary, which is it? What is the diminution of value and how does that get mitigated? [eb] we might want to do a net effects analysis</p> | <p>The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group meeting. The commenter states confusion between temporary and permanent impacts in the paragraph from the BDCP (Chapter 5 Effects Analysis) that they have included as reference. These are all of the temporary impacts, but only the 185 acres of borrow and spoil impacts are carried forward and included in the permanent loss net effects equation. This is because these acres will be disturbed for years and do not meet the typical definition of temporary. These acres will however be restored and protected, enhanced, and managed within the reserve.</p> <p>Please see response to comment 1562-1, regarding the BDCP, Alternative 4, no longer being the preferred alternative.</p> |

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| | | for each value category. I am fairly certain this will result in disproportionate increase in protected high value habitat, based on the protection objectives. | |
| 1562 | 115 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Marking transmission lines with devices that make the lines more visible to birds has been shown to dramatically reduce the incidence of bird mortality, including for sandhill cranes. Brown and Drewien (1995) estimated that marking devices in the Central Valley would reduce crane mortality by 66%. Using this assumption, by incorporating line-marking devices into the designs the annual mortality rate is estimated to decrease to 6 deaths per year for the permanent lines and 42 deaths per year for the temporary lines.</p> <p>Comments and response:</p> <p>Need to include placement of diverters and maintenance of diverters [eb] this will be in Avoidance and Mitigation Measures (AMM).</p> | The commenter has provided notes from a Stone Lakes National Wildlife Refuge Working Group meeting and asks that language specifying the placement and maintenance of bird diverters on transmission lines is included in the document. This language has been added to AMM20 Greater Sandhill Crane (Appendix 3B, Final EIR/EIS). |
| 1562 | 116 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Marsh and floodplain restoration also has the potential to increase exposure to methylmercury. Mercury is transformed into the more bioavailable form of methylmercury in aquatic systems, especially areas subjected to regular wetting and drying such as tidal marshes and flood plains. Thus, restoration activities that create newly inundated areas could increase bioavailability of mercury. Increased methylmercury associated with natural community and floodplain restoration may indirectly affect the greater sandhill crane via uptake in lower trophic levels (Appendix 5.D, Contaminants). In general, the highest methylation rates are associated with high tidal marshes that experience intermittent wetting and drying and associated anoxic conditions (Alpers et al. 2008). The potential mobilization or creation of methylmercury in the Plan Area varies with site-specific conditions and will need to be assessed at the project level. The Suisun Marsh Plan (Bureau of Reclamation et al. 2010) anticipates that tidal wetlands restored under the plan will generate less methylmercury than the existing managed wetlands. Along with minimization and mitigation measures and adaptive management and monitoring, CM12 Methylmercury Management is expected to reduce the amount of methylmercury resulting from the restoration of natural communities and floodplains.</p> <p>Comments and response:</p> <p>This section is confusing and potentially inaccurate. Tidal marsh is lost habitat, seasonally flooded areas have very few and limited BMPs for MeHg (methylmercury), despite assertions here. [eb] disagree with inaccurate, but agree that we need to provide further analysis of mercury effects in seasonally flooded areas.</p> | The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group meeting. The commenter questions the methylmercury analysis for tidal marsh and floodplains. The analysis of the effects of methylmercury have been revised for the Recirculated Draft EIR/Supplemental EIS to include more species-specific detail with respect to mechanism of effect and locations of effect within the project area. |
| 1562 | 117 | [From ATT 4:] | The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group meeting in |

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| | | <p>Language:</p> <p>Covered activities are expected to permanently remove up to 7,136 acres of modeled habitat for greater sandhill crane representing 4% of the total habitat in the Plan Area, including 71 (less than 1%) of its modeled temporary roosting and foraging habitat. While cultivated lands will be affected, this and other adverse habitat effects resulting in take are not expected to adversely affect the species' long-term survival and conservation because the affected areas represent a small proportion of habitat in the Plan Area impacts are quantified in areas that will be converted to usable habitat for the crane, and much of the affected habitat has relatively low value.</p> <p>Comments and response:</p> <p>This is the critical occupied core habitat for the crane and this section ignores that fact, despite introducing the concept at the beginning. It has very high value and functions to provide the last major refugia for the species. Protection of additional acreage does not replace the functional core area for the crane given its biology. This species is very slow to use new roosting habitat and the "analysis" simply assumes they are interchangeable. [eb] impacts in the highest value areas will primarily be temporary and the performance standard assures no population effects as a result of the construction activity. This part of the analysis will be reworded to reflect this fact.</p> | <p>which they request clarification regarding greater sandhill crane habitat impacts.</p> <p>Please see response to comment 1562-1, regarding the BDCP, Alternative 4, no longer being the preferred alternative.</p> |
| 1562 | 118 | <p>[From ATT 4:]</p> <p>Language:</p> <p>Overall, the BDCP will provide a net benefit to the greater sandhill crane through the increase in available roosting habitat, the maintenance of existing or enhanced foraging habitat as well as an increase in extent of habitat in protected status. These protected areas will be managed and monitored to support the species. Collision mortality will be offset by implementation of minimization and mitigation measures with an expected no net loss of cranes due to bird strikes. Therefore, the BDCP will minimize and mitigate impacts, to the maximum extent practicable, and provide for the conservation and management of the greater sandhill crane in the Plan Area.</p> <p>Comments and response:</p> <p>Incorporation of monitoring concerns is still needed. What entity will be responsible for monitoring effectiveness and making changes as needed. [eb] agreed. We are still developing these details.</p> | <p>The commenter provides notes from a Stone Lakes National Wildlife Refuge Working Group meeting and asks that incorporation of monitoring is included in the BDCP. The commenter also asks who will be responsible for monitoring effectiveness and making changes as needed. As is included in the text of the comment, the adaptive management and monitoring plan is currently under development. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 119 | <p>[ATT 5: Exhibit E. Crane Comments for Discussion with Friends of Stone Lakes National Wildlife Refuge Association and ICF Notes. April 18, 2014. Excerpts from the greater sandhill crane (GSHC) conservation strategy and effects analysis.]</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 the comment referencing the attachment or the Final EIR/EIS.</p> |
| 1562 | 120 | <p>[ATT 5: att 1: Chart of Assigned Greater Sandhill Crane Foraging Habitat Value Classes for Agricultural Crop Types.]</p> | <p>This attachment was considered in the response to comment related to agricultural crop types above.</p> |
| 1562 | 121 | <p>[From ATT 5:]</p> <p>[Alfalfa is in the High category, but] new data indicate that greater sandhill crane rarely</p> | <p>See response to comment 1562-94.</p> |

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| | | <p>use alfalfa (Ivey, pers. Comm.) Recommend moving alfalfa to Medium category. Why was dry pasture of a minimum size not included?</p> <p>Note that greater sandhill crane does not use alfalfa.</p> | |
| 1562 | 122 | [ATT 5: att 2: Table 5.6-10. Total Amount of Greater Sandhill Crane Habitat Lost from Covered Activities.] | This comment describes a table and any response connected to the covered activities are addressed within this comment table. |
| 1562 | 123 | <p>[From ATT 5:]</p> <p>[Total amount of greater sandhill crane habitat loss of high alfalfa and alfalfa mixtures] types should be moved to medium because of recent data.]</p> | See response to comment 1562-94. |
| 1562 | 124 | <p>[From ATT 5:]</p> <p>What is the difference between native pasture and grassland [for the total amount of greater sandhill crane habitat loss]?</p> | See response to comment 1562-94. |
| 1562 | 125 | <p>[From ATT 5:]</p> <p>From Objective GSHC 1.2 Rationale:</p> <p>"Requiring that 10% (730 acres) of the crane reserves be created or enhanced by converting unsuitable crops to high-value crops will help to redress the past conversion from high-value to low-value crop types."</p> <p>Does this really accomplish anything when so much conversion is occurring? In the end, is not the goal to have the greatest number of acres of high value habitat in proximity to roosting? Has anyone analyzed if using the additional expense for re-conversion would be better spent acquiring more land to begin with? What is gained if a lot of money is spent to re-convert when perfectly suitable high quality habitat is simultaneously being converted by others to vineyards? Vineyards and orchards should be purchased and re-converted when no other suitable acres are available.</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 126 | <p>[From ATT 5:]</p> <p>From Objective GSHC 1.2 Rationale:</p> <p>"Crane habitat may periodically become unsuitable as a result of large flood events (100 year events) within river floodplains."</p> <p>Is this the event we are targeting for avoidance? My impression was that the idea was to avoid protection of areas that flood more frequently than every 100 years.</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 127 | <p>[From ATT 5:]</p> <p>From Objective GSHC 1.2 Rationale:</p> <p>"Conserved lands within the Stone Lakes National Wildlife Refuge Project Boundary will be transferred to the refuge to ensure management consistent with the rest of the refuge</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. After release of</p> |

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| | | lands, therefore contributing to a regional management strategy for the crane." Do we need to address issue of reverter clauses, etc. that may potentially be in deed documents. What about endowments to manage the land? | the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. |
| 1562 | 128 | [From ATT 5:] From Objective GSHC 1.2 Rationale: "The development of the ponds and checks will consider the ability of predators to access roosting cranes along checks and levees." These factors are correct; how will the checks and levees not be highways for foxes and coyotes? | Please see response to comment 1562-1. Alternative 4A in the EIR/EIS does not include these biological goals and objectives. |
| 1562 | 129 | [From ATT 5:] From Objective GSHC 1.2 Rationale: "If covered activities are to occur during greater sandhill crane wintering season (September 15 through March 15) in the Greater Sandhill Crane Winter Use Area (Appendix 2.A, Figure 2.A-19-2), the following avoidance and minimization measures will be implemented." With the last couple of years yielding very early arrivals, this date may need to be re-visited. Also given potential climate change seasonality. | Please see response to comment 1562-127. |
| 1562 | 130 | [From ATT 5:] From Objective GSHC 1.2 Rationale: "Manage habitat to shift cultivated land roost site locations away from risk zones created by new transmission lines. This can be accomplished by not flooding past or current roosting sites located in the vicinity of the new transmission line, thereby eliminating the sites' attractiveness as roosting habitat; and establishing new roost site equal or greater in size at new location in a lower risk zone but within 1 mile of the affected site. The relocated roost site will be established prior to commencement of the wintering season that occurs prior to construction of new transmission lines." This is a new and unanalyzed impact on the greater sandhill crane. This can cause more harm and lead to greater loss of habitat use. | Please see response to comment 1562-1. Alternative 4A in the EIR/EIS does not include these biological goals and objectives. |
| 1562 | 131 | [From ATT 5:] From Objective GSHC 1.2 Rationale: "Roost sites that consist of wetlands rather than cultivated lands will not be subject to relocation." This is still unclear in terms of when relocation will be implemented. There is also not clear evidence that relocation of roost sites will be successful. The creation and | Please see response to comment 1562-1. Alternative 4A in the EIR/EIS does not include these biological goals and objectives. |

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| | | re-occupancy of new sites can take several years if it happens at all. | |
| 1562 | 132 | <p>[From ATT 5:]</p> <p>From Objective GSHC 1.2 Rationale:</p> <p>"Effects in the Cosumnes/Mokelumne Restoration Opportunity Area (ROA) associated with tidal wetland restoration activities occur in low-value cultivated lands that are restored to become tidal wetlands. To be conservative, these effects are counted as a permanent loss of sandhill crane habitat. However, tidal wetland restoration may in some cases provide habitat value for cranes."</p> <p>Both of these arguments seem unsubstantiated. How many acres score as low value, and how would tidal have any value to cranes?</p> | Please see response to comment 1562-1. Alternative 4A in the EIR/EIS does not include these biological goals and objectives. |
| 1562 | 133 | [ATT 6: Exhibit F. Stone Lakes National Wildlife Refuge Comments on Western Burrowing Owl Conservation Strategy. May 22, 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 the comment referencing the attachment or the Final EIR/EIS. Chapter 12 of the Final EIR/EIS addresses the proposed project's effects on western burrowing owl. |
| 1562 | 134 | <p>[From ATT 6:]</p> <p>BDCP page 3.3-266:</p> <p>"Objective GNC1.2: Restore 2,000 acres of grasslands to connect fragmented patches of protected grassland and to provide upland habitat adjacent to riparian and tidal and nontidal natural communities for wildlife foraging and upland refugia."</p> <p>Comment:</p> <p>Consider adding language to existing Objective or add objective that California ground squirrel (CAGS) will be reestablished or not removed from areas where western burrowing owl (BUOW) are being established. The best way to create high quality BUOW habitat is through establishing CAGS colonies in grassland settings. Establishing CAGS colonies in low value habitats may be a way of creating high value habitat if there is sufficient acreage. Grasslands must be managed through grazing of cattle, sheep, goats to meet optimum grass height and density. What is the definition of "restore" does that mean plant to native grasslands, nonnatives or a mix? Does this include weed control?</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. Some Conservation Measures that were originally described in the 2013 Public Draft BDCP are included in the new proposed project as Environmental Commitments. Natural Communities Restoration and Channel Margin Enhancement in the Byron area are included in these new Environmental Commitments. Mitigation under the Proposed Project calls for the protection of grasslands, vernal pool, and alkali seasonal wetland communities near Byron. This is in recognition of the high value these lands serve as part of the larger, contiguous, undeveloped lands to the west (e.g., Los Vaqueros watershed). The protection of grassland and vernal mesic communities in this region have potential to benefit a number of covered and native species, including: Swainson's hawk, burrowing owl, California red-legged frog, California tiger salamander, alkali milk-vetch, legumere, etc. For more information please see Appendix 3B Environmental Commitments, AMMs, and CMs of the RDEIR/SDEIS.</p> |
| 1562 | 135 | <p>[From ATT 6:]</p> <p>BDCP page 3.3-268:</p> <p>"Objectives ASWNC2.3, ASWNC2.4, VPNC2.4, VPNC2.5, GNC2.3, and GNC2.4 Benefits: The distribution of burrowing owls is in part determined by the presence of ground squirrels that initially excavate burrow systems burrowing owls will later inhabit. While grasslands remain relatively abundant along the western edge of the Plan Area and a large amount of grassland will be protected under Objectives GNC1.1, ASWNC1.1, and VPNC1.1 (including the grassland components of alkali seasonal wetland and vernal pool complexes), most of these grasslands are currently not occupied by burrowing owls."</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. Some Conservation Measures that were originally described in the 2013 Public Draft BDCP are included in the new proposed project as Environmental Commitments. Natural Communities Restoration and Channel Margin Enhancement in the Byron area are included in these new Environmental Commitments. Mitigation under the Proposed Project calls for the protection of grasslands, vernal pool, and alkali seasonal wetland communities near Byron. This is in recognition of the high value these lands serve as part of the larger, contiguous, undeveloped lands to the west (e.g., Los Vaqueros watershed). The protection of grassland and</p> |

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| | | <p>Comment:</p> <p>Incorporating lands adjacent to Plan Area that have established burrowing owls and squirrel colonies will improve these objectives success.</p> <p>"This is due in part to burrow availability. To facilitate expansion of the burrowing owl population in the Plan Area, Objectives GNC2.3, ASWNC2.3, and VPNC2.3 will increase burrow availability on protected grasslands by encouraging ground squirrel occupancy and population expansion. This will be done through the creation of berms, mounds, edges, and other features designed to attract and encourage burrowing activity and by prohibiting ground squirrel control programs (i.e., poisoning) in the reserve system, as described in CM11 Natural Communities Enhancement and Management."</p> <p>Comment:</p> <p>Will these efforts also include relocating squirrels to establish colonies? It would be wise to identify which agricultural practices have a greater concern for ground squirrel impacts on crops (probably cultivated lands)."</p> <p>"Increasing small mammal and insect prey populations in the reserve system, consistent with GNC2.4, ASWNC2.4, and VPNC2.4, will also contribute to the expansion of the existing burrowing owl population; these objectives will be achieved through management and enhancement as described in CM11 Natural Communities Enhancement and Management."</p> | <p>vernally mesic communities in this region have potential to benefit a number of covered and native species, including: Swainson's hawk, burrowing owl, California red-legged frog, California tiger salamander, alkali milk-vetch, legnere, etc. For more information please see Appendix 3B Environmental Commitments, AMMs, and CMs of the RDEIR/SDEIS.</p> |
| 1562 | 136 | <p>[From ATT 6:]</p> <p>BDCP page 3.3-269:</p> <p>"Objective WBO1.1: Of the 48,625 acres of cultivated land protected under Objective CLNC1.1, protect at least 1,000 acres [insert]and establish California ground squirrel colonies[insert] in Conservation Zones 1 and 11 that support high-value burrowing owl habitat and are within 0.5 mile of high-value grassland habitat or occupied low-value habitat."</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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. Some Conservation Measures that were originally described in the 2013 Public Draft BDCP are included in the new proposed project as Environmental Commitments. Natural Communities Restoration and Channel Margin Enhancement in the Byron area are included in these new Environmental Commitments. Mitigation under the Proposed Project calls for the protection of grasslands, vernal pool, and alkali seasonal wetland communities near Byron. This is in recognition of the high value these lands serve as part of the larger, contiguous, undeveloped lands to the west (e.g., Los Vaqueros watershed). The protection of grassland and vernal mesic communities in this region have potential to benefit a number of covered and native species, including: Swainson's hawk, burrowing owl, California red-legged frog, California tiger salamander, alkali milk-vetch, legnere, etc. For more information please see Appendix 3B Environmental Commitments, AMMs, and CMs of the RDEIR/SDEIS.</p> |
| 1562 | 137 | <p>[From ATT 6:]</p> <p>BDCP page 3.C-63:</p> <p>"A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction)."</p> <p>[insert]The biological monitor will also conduct training of construction personnel on the avoidance procedures, buffers, and protocols in the event that a burrowing owl flies into</p> | <p>In situations where owls are occupying a burrow within a construction area, the biologist monitoring the owls will determine on case by case basis whether exclusion and/or replacement habitat is required. Any exclusion efforts and replacement habitat plans will be developed in consultation with CDFW, as stated in AMM23 Western Burrowing Owl.</p> |

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| | | <p>an active construction zone.[insert]</p> <p>Comment:</p> <p>Could we recommend that an artificial structure be constructed a certain distance away if the owls are occupying a burrow within a construction area that will be monitored?</p> | |
| 1562 | 138 | <p>[From ATT 6:]</p> <p>BDCP page 3.C-63:</p> <p>"The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities."</p> <p>Comment:</p> <p>How often will be biologist monitor the owls? Daily, every other day?</p> | <p>The commenter is commenting Appendix 3C of the BDCP AMM23 Western Burrowing Owl and is asking what the frequency of monitoring will be for western burrowing owls. AMM23 states that a monitoring plan will be developed and monitoring frequency will be developed in coordination with California Department of Fish and Wildlife.</p> |
| 1562 | 139 | <p>[From ATT 6:]</p> <p>BDCP page 3.C-63:</p> <p>Insert:</p> <p>An artificial burrow will be constructed outside the construction zone within XXX feet of existing burrow.</p> | <p>The commenter is commenting on BDCP Appendix 3.C AMM23 Western Burrowing Owl and has provided text to insert into the BDCP. The following text is included in AMM23 which provides distance criteria for artificial burrows "Artificial burrows will be used where burrowing owls must be excluded from existing burrows if such artificial burrows can be created less than 100 meters from the existing burrows on lands that are protected as part of the reserve system, or on Stone Lakes National Wildlife Refuge lands (in coordination with the refuge manager)."</p> |
| 1562 | 140 | <p>[From ATT 6:]</p> <p>BDCP page 3.C-63:</p> <p>"During construction, the nondisturbance buffers will be established and maintained, if applicable."</p> <p>Comment:</p> <p>Under what circumstance would a buffer not be applicable?</p> | <p>In AMM23 Western Burrowing Owl, the sentence that precedes the sentence the commenter sites says: "Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active". The discussion the follows the sentence cited says: "A qualified biologist will monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor will also conduct training of construction personnel on the avoidance procedures, buffers, and protocols in the event that a burrowing owl flies into an active construction zone." The "if applicable" means if the burrow is still occupied.</p> |
| 1562 | 141 | <p>[From ATT 6:]</p> <p>BDCP page 5.6-86:</p> <p>If California ground squirrel (CAGS) colonies are present with the owls, and the CAGS colonies are flooded to the point they do not reestablish themselves, then the impact to the owls would be more than minimal and they would likely be extirpated from the area, even though flooding only occurs once every three-four years.</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>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> |
| 1562 | 142 | <p>[From ATT 6:]</p> <p>BDCP page 5.6-89:</p> <p>Recommend also protecting and improving land surrounding known breeding and</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS. 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. After release of the 2013 DEIR/EIS, the project facilities and</p> |

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| | | wintering populations for increasing distribution. Is there a map of owl occurrences? | tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, and visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. |
| 1562 | 143 | [From ATT 6:] BDCP page 5.6-89: A population of burrowing owls that nest in Eastern Washington have been tracked to the Central Valley where they over winter (Global Owl Project 2009-2011). Stone Lakes National Wildlife Refuge supports both breeding owls occupying natural squirrel burrows and artificial burrows that are occupied primarily over the winter. | Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS. |
| 1562 | 144 | [ATT 7: Exhibit G. Letter to Jerry Meral, Deputy Secretary of California Natural Resources Agency, from Stone Lakes National Wildlife Refuge Association. Re: Status of Stone Lakes Working Group. November 2, 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 the comment referencing the attachment or the Final EIR/EIS. |
| 1562 | 145 | [From ATT 7:] The Stone Lakes National Wildlife Refuge is ground zero for major components of the Bay Delta Conservation Plan's (BDCP) proposed Conservation Measure 1, the Tunnel Conveyance Facility. The three large water intake plants, the tunnel entrance and forebay and the permanent and temporary transmission lines serving them are all proposed to be within or adjacent to the Refuge. The Refuge will experience significant direct and indirect impacts from the project, and the Association is an affected stakeholder. | Please see Chapter 12 Terrestrial Biological Resources for impacts related to the Stone Lakes National Wildlife Refuge. |
| 1562 | 146 | [From ATT 7:] The USFWS and California State Department of Fish and Wildlife (DFW), as cooperating agencies on the BDCP, must consider whether to issue take permits to the California State Department of Water Resources (DWR) for the tunnels. They must take into account species impact, both terrestrial and aquatic, in considering permit issuance. The Stone Lakes National Wildlife Refuge Association has been engaged in the BDCP from the outset, expressing major concerns as early as May 2009. We have pushed for a Stone Lakes Working Group since March 2011. Beginning in 2013, we have been working with BDCP planners and USFWS and DWR staff to address our concerns at several working group meetings. | Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS. 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. Likewise, take of state listed species requires an incidental take permit per Section 2081 of the California Fish and Game Code. The U.S. Bureau of Reclamation and DWR are in the process of consulting with the USFWS, NMFS, and CDFW for the obtaining these permits. |
| 1562 | 147 | [From ATT 7:] Changes to the project over the last several months have reduced the scale of project impacts on Stone Lakes. The forebay location is now near Twin Cities Road on less sensitive habitat with less impact to sensitive species. The forebay is now smaller, with a lower elevation. The BDCP is now committing to create new wetland roosting and associated uplands to better link the flyway route. The Avoidance and Mitigation Measures (AMM's) are stronger. Transmission line mitigation and route adjustments are | The commenter's opinion on the project is acknowledged. |

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| | | in the works. | |
| 1562 | 148 | <p>[From ATT 7:]</p> <p>The Stone Lakes National Wildlife Refuge Association appreciates the commitment that BDCP planners have made to address our concerns. We appreciate the efforts to improve mitigation for impacted terrestrial species. We appreciate that mitigation may increase wetland roost and foraging acres managed by the Refuge, although we are certainly cognizant that the peripheral tunnel project is not the preferred way to implement the Stone Lakes NWR.</p> | The commenter does not offer any evidence on how the project would result in significant impacts to the Stone Lakes National Wildlife Refuge relating to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. |
| 1562 | 149 | <p>[From ATT 7:]</p> <p>Even with these mitigation efforts, the Association is concerned that the CM1 Optimal Alignment proposal -- the Tunnel Conveyance Facility -- has not adequately addressed all the impacts to the affected species covered in the plan. In part, this is because the project has been continually changing and the project description remains uncertain and incomplete. We hope that the upcoming Public Review Draft will provide the necessary and required design details and additional proposed mitigation to better assist us in understanding the impacts and issues related to this project.</p> | Please see Master Response 2 regarding sufficiency of the level of information for CM 1. |
| 1562 | 150 | <p>[From ATT 7:]</p> <p>The new forebay and tunnel entrance, even though it reduces foraging habitat loss and offers other advantages, is still within the Stone Lakes National Wildlife Refuge Boundary. The tunnel crosses Refuge land and right of way and temporary permits will be required for the conveyor belt.</p> | 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. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS. Please see response to comment 1562-7. |
| 1562 | 151 | <p>[From ATT 7:]</p> <p>While we do not oppose the new location as it appears at this time to be the "least worse" site, we must recognize that the new location will potentially complicate completing the refuge in ways that we cannot completely predict. Landowners may be less willing to cooperatively manage lands for wildlife benefit, enter into conservation easements or sell land to the Stone Lakes National Wildlife Refuge at affordable prices. In addition, the [Stone Lakes National Wildlife Refuge] Association's long-term goal for public access along adjoining the old railroad grade may be compromised by forebay security concerns. We believe that the Tunnel Conveyance Facility project should include additional commitments to assisting the goal of completing the Refuge.</p> | <p>Please see response to comment 1562-1 regarding the new preferred alternative (Alternative 4A) and refinements made to Alternative 4 in the RDEIR/SDEIS. The comment does not raise any issues related to the adequacy of the environmental impact analysis in the EIR/EIS.</p> <p>Please note that the preferred alternative is now Alternative 4A and no longer includes conservation measures or a habitat conservation plan. Therefore, project-related restoration would not occur on Stone Lakes National Wildlife Refuge land. Alternative 4A would include a temporary work area and a reusable tunnel material area for Intake 2 adjacent to Stone Lakes National Wildlife Refuge, but those features would be separated by a waterway. Further discussion of the Stone Lakes NWR CCP is provided in Chapter 12, Terrestrial Biological Resources, under Impact BIO-187.</p> |
| 1562 | 152 | <p>[From ATT 7:]</p> <p>The planned transmission lines cross or are adjacent to Stone Lakes National Wildlife Refuge lands, and their size and location remain subject to change as DWR negotiates with power providers. DWR remains reluctant to seriously consider undergrounding of permanent transmission lines.</p> | <p>As part of AMM20, Greater Sandhill Crane, 3.C.2.20.1.2 Required Measures, DWR has committed to the following: During the final powerline design process, undergrounding of all new permanent powerlines north of Glannvale Tract will be comprehensively evaluated with respect to cost, operational risks, bird strike risks, and other relevant factors. DWR will continue to analyze the feasibility of undergrounding powerlines. Please see response to comments 1562-21 through 27 regarding transmission lines.</p> <p>For more information please see Appendix 3B Environmental Commitments of the RDEIR/SDEIS.</p> |
| 1562 | 153 | [From ATT 7:] | With regards to the feasibility of mitigation proposed, please refer to Master Response 22. Also see |

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| | | We (Stone Lakes National Wildlife Refuge Association) remain concerned about the mitigation of noise, light and facilities impacts on sensitive species. The greater sandhill crane is a flagship species for the Refuge and has high roost fidelity. It is not at all clear how well the species will tolerate the major intrusion of construction activity. The mitigation language in the plan is replete with "to the extent feasible" language. These potential impacts deserve continued study and attention to efforts to tighten the mitigation measures. | Master Response 17 and commitments to adaptive management and other environmental commitments. Also refer to the Mitigation and Monitoring/Reporting Program. |
| 1562 | 154 | [From ATT 7:] Muck storage on Zacharias Island, its placement and content, remain a concern. DWR describes the tunnel drilling lubricants as organic and vegetative based, but that could still very well include chemicals that are harmful to wildlife. DWR cites efforts to reduce storage and find beneficial uses for the muck, but there is no assurance that these will materialize. Quantitative commitments to muck minimization should be incorporated into the project. | The RTM management plan description in Appendix 3B indicates that spoils and RTM could be used for other beneficial purposes. However, for purposes of CEQA and NEPA the location of these materials in the Plan Area, including on Zacharias Island were assumed to be permanent to provide a worst case evaluation of the potential agricultural, wetland and other effects. |
| 1562 | 155 | [From ATT 7:] Truck traffic will substantially increase along roads around the Stone Lakes National Wildlife Refuge during the 10-year construction period. Traffic will significantly increase along Hood Franklin in front of Refuge Headquarters and adjacent to Blue Heron Trails, which also is an identified greater sandhill crane roost area. | The commenter states that traffic will increase along Hood Franklin Road. We agree with the commenter that traffic will increase substantially during the construction period. However, truck and farm traffic is very common along Hood Franklin Road and other roads that are adjacent to crane roosting and foraging habitat in the Delta. AMM20 includes a measure to install a vegetation screen or other noise and visual barrier along the south side of Hood Franklin Road along the length of Stone Lake National Wildlife Refuge's property to reduce disturbance to sandhill cranes. With this measure in place, increased truck traffic is not expected to significantly impact greater sandhill cranes in the Delta. Please see response to comment 1562-34. |
| 1562 | 156 | [From ATT 7:] Staten Island's significant sandhill crane population is threatened by the new project alignment with muck storage and transmission lines crossing a major roost area. We (Stone Lakes National Wildlife Refuge Association) will continue to be engaged in efforts to eliminate or greatly reduce these impacts. | The commenter states the importance of Staten Island to sandhill cranes. For the Recirculated Draft EIR/Supplemental EIS, the lead agencies have redesigned Alternative 4, and included Alternative 4A (the new preferred alternative), so that there are no permanent impacts (including RTM storage) and the construction of any new transmission lines on Staten Island. |
| 1562 | 157 | [From ATT 7:] There needs to be greater clarification and detail about the amount, timing and funding of new sandhill crane habitat. | Impacts to sandhill crane are discussed in EIR/EIS Chapter 12. 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. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17. For more information on BDCP funding, please see Master Response 5. |
| 1562 | 158 | [From ATT 7:] It is increasingly evident that the overall project's conservation and mitigation measures are many and complex and will require vigilance in implementation. We (Stone Lakes National Wildlife Refuge Association) are concerned that the proposed governance structure does not provide adequate assurances and balance to ensure that measures will be implemented. We believe there needs to be: * Verification of how Avoidance and Mitigation Measures (AMM's) are intended to be implemented within the plan. | Please see Master Response 5 for a discussion of the governance structure proposed in the 2013 public draft BDCP. Please also see Master Response 33 for a discussion of the adequacy of the adaptive management program. |

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| | | <p>* Verification that the implementation of the AMMs are subject to credible oversight, especially during the intake/tunnel construction process.</p> <p>* Verification that AMM implementation costs are included within the Plan.</p> <p>* Verification that there is a place for the Association as part of the ongoing Plan oversight to ensure effectiveness of mitigation measures and adaptive management responses.</p> <p>We will continue to review the governance portion of the project and provide input and recommendations just as we will continue to engage the BDCP process and work to ensure that the project, if it goes forward, will protect the Refuge's viability as a significant migratory waterfowl wetland.</p> | |
| 1562 | 159 | <p>[From ATT 7:]</p> <p>While the [Stone Lakes National Wildlife Refuge] Association will remain primarily concerned with the specifics of this project's impacts on the Refuge, the Association is aware of the large scale questions and issues associated with the project that deserve attention in the larger public interest. These questions include:</p> <ul style="list-style-type: none"> * Is the project is the best solution for meeting California's long term water needs? * Will the proposed conservation measures to benefit impacted fish species be successful in increasing threatened populations? * Will the project operate as proposed? * Will it improve the long term viability of Delta lands? * Is it the most economically viable and ultimately affordable solution to the state's water challenges? * Who will ultimately pay for it? * Are there adequate assurances that the project will not serve as a conduit for increased water transfers to the south at the expense of northern California needs? * And perhaps most important: How much water is available to meet the needs of Californians and protect its native habitat and species, how will that availability change with climate change, and at what point may water availability issues become a limiting factor in California's growth? <p>The Association supports a comprehensive and unbiased effort to address these concerns, and urges that state and federal participants proceed with care and diligence. We, and all Californians, need and deserve careful and thoughtful deliberation before a decision is made to move forward with the largest construction project in State history.</p> | <p>Please see Master Response 5 for additional detail on the BDCP and the alternatives involving an HCP component. The following information answers the comment in regards to the BDCP but is no longer entirely applicable under the proposed Alternative 4A.</p> <ol style="list-style-type: none"> 1. The BDCP is a proposed Habitat Conservation Plan (HCP) and a Natural Community Conservation Plan (NCCP) developed to comply with the Federal Endangered Species Act (ESA) and the California Natural Community and Conservation Planning Act (NCCPA), and intended to result in long-term permits for the operations of the State Water Project (SWP) and Central Valley Project (CVP). Although the BDCP, 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. 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. More information about how BDCP fits into statewide efforts is provided in Master Response 5 and Master Response 8. 2. Chapter 5, Effects Analysis, of the BDCP, examines the likely outcome of the proposed BDCP action on fish populations and concludes that overall, the BDCP will have a beneficial net effect on native fish species. As and HCP/NCCP, the BDCP must demonstrate a net benefit in order to obtain approval and permits. 3. 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, overall flow in the river, and other factors (described in the BDCP EIR/EIS Chapter 3, and BDCP Chapter 3). More explanation about how the BDCP will be operated as proposed is provided in 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, overall flow in the river, and other factors (described in the BDCP EIR/EIS Chapter 3, and BDCP Chapter 3). More explanation about how the BDCP will be operated as proposed is provided in Master Response 5. 4. The BDCP examines the long-term viability of Delta lands from an ecological standpoint and concludes in Chapter 5 that the BDCP would have a net beneficial effect. The EIR/EIS address impacts on land use, agricultural lands, recreation and socioeconomics. More information on the potential impacts to these resources is found in Chapter 13-16 of the EIR/EIS. However, neither the BDCP nor EIR/EIS is tasked with improving the long-term economic viability of the Delta. Rather, the 2009 Delta Reform Act required the Delta Protection Commission to prepare an Economic Sustainability Plan (ESP) for the Delta region. The ESP was adopted in January 2012 and includes information and recommendations that inform the Delta |

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| | | | <p>Stewardship Council’s policies concerning the socioeconomic sustainability of the Delta region. More information is provided at http://www.delta.ca.gov/.</p> <p>5. Chapter 9 of the BDCP evaluates the cost-effectiveness of the proposed BDCP against other alternatives and concludes that BDCP is a cost effective solution for addressing water supply reliability of Delta exports. As mentioned above, the BDCP is one component of the State’s overall strategy to address water supply needs and is only intended to address the specific challenges outlined in the project purpose and need in Chapter 1, Introduction, of the EIR/EIS. More information on why the proposed BDCP is a sound economic solution is provided in BDCP Chapter 9, Alternatives to Take.</p> <p>6. Chapter 8 of the BDCP describes the costs and potential funding sources needed to implement the proposed project and meets the requirements of an NCP/ NCCP for demonstrating that sufficient funding will be available. Approximately two-thirds of BDCP (water facilities and portions of habitat restoration would be funding by the state and federal water controls whose ratepayers receive water from the Delta. To date, state and federal contractors have established a track record of meeting reimbursement obligations; providing sound evidence that funding is feasible. More information about how the BDCP would be funded is provided in Master Response 5.</p> <p>7. The BDCP would not govern water transfers. The California Water Code provides the framework of the regulatory process that governs water</p> <p>transfers in California. The State Water Board has responsibility for administering appropriate water rights in the state. Water rights subject to transfer by a willing seller are regulated by the board in various ways. Long-term water transfers as subject to environmental review under CEQA and any transfers conveyed through BDCP facilities will need to satisfy all of the applicable requirements in force at the time of the transfer’s approval. More information on water transfers is provided in the EIR/EIS Chapter 5, Water Supply, section 5.2.2.2 California State Water Resources Control Board.</p> <p>8. The Cumulative Effects analysis included at the end of chapters 5-30 includes a description and analysis of one of the California Water Action Plan programs that involves supplying “public flows” for environmental benefits that would augment BDCP surface water flow requirements.</p> |
| 1562 | 160 | [ATT 8: Exhibit H. Maps of Hypothetical Restoration Assumptions for BDCP Modeling -- Early Long-Term and Late Long-Term.] | This comment describes a part of the BDCP EIR/EIS and does not raise a specific comment not otherwise addressed in the responses above. |
| 1562 | 161 | [ATT 9: Exhibit I. Map of Greater Sandhill Crane Additional Analysis for Transmission Line Study Area. 2012.] | This comment describes a map attached to the comment letter and does not itself raise a comment. |
| 1562 | 162 | [ATT 10: Exhibit J. Reusable Tunnel Material Testing Report by the Delta Habitat Conservation and Conveyance Program. March 2014. (select pages only)] | This comment describes a Report analyzed in the EIR/EIS. |
| 1562 | 163 | [ATT 11: Exhibit K. Report on Noise Levels from Proposed Concrete Batching Plant at Fairford Concrete Ltd., Gloucestershire, UK. July 2008. (Page 10 only)] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. |
| 1562 | 164 | [ATT 12. Exhibit L. Comments from Friends of Stone Lakes National Wildlife Refuge Association on Greater Sandhill Crane Strategy and Effects. February 24, 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 the comment referencing the attachment or the Final EIR/EIS. |

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| 1562 | 165 | <p>[From ATT 12:]</p> <p>BDCP Section 3.3.7.18</p> <p>The document needs consistency when referring to the Stone Lakes NWR, Cosumnes and the Project Boundary. Suggestions: Stone Lakes National Wildlife Refuge (Stone Lakes NWR), Cosumnes River Preserve (Cosumnes RP), Stone Lakes NWR Project Boundary (SLNWR Project Boundary).</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> |
| 1562 | 166 | <p>[From ATT 12:]</p> <p>BDCP Section 3.3.7.18</p> <p>How is connectivity a factor for greater sandhill crane other than in terms of placing the lines on the routes?</p> | <p>Greater sandhill cranes return to the same sites year after year, if the crop type at a roosting site is changed and is no longer available, there is a need to have alternative sites “nearby” so that crane roosting sites can remain near, or connected to, high-value foraging sites as cranes forage, typically, no more than 2 miles from their roost. In this way, BDCP conservation will help to maintain and expand crane roosting and foraging opportunities in the Delta, particularly in the east Delta.</p> <p>For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 167 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-240</p> <p>"Objective CLNC1.1: Protect 48,625 acres of cultivated lands that provide suitable habitat for covered and other native wildlife species."</p> <p>Comment: Currently provide or have potential to provide?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 168 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-240</p> <p>"Objective CLNC1.3: Maintain and protect the small patches of important wildlife habitats associated with cultivated lands that occur in cultivated lands within the reserve system, including isolated valley oak trees, trees and shrubs along field borders and roadsides, remnant groves, riparian corridors, water conveyance channels, grasslands, ponds, and wetlands."</p> <p>Comment: (Here and later.) What is the ecological relationship to these lands, the greater sandhill crane species' requirements, and the 7,300 ac, the 700...</p> <p>Comment: Is "reserve system" defined elsewhere in the document. May want to define...</p> <p>Comment: Objectively how is this a targeted ecosystem or suite of ecosystem values? How can we measure the success or failure of this...</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 169 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-240</p> <p>"Objective CLNC1.1 Benefits: The key to sustaining greater sandhill crane populations in the Plan Area is the sustainability of an economically viable and compatible cultivated</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality,</p> |

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| | | <p>landscape. This objective will protect sufficient suitable habitat in the Plan Area for covered species associated with cultivated lands, including the greater sandhill crane. Achieving this objective will offset the loss of cultivated land values from construction actions and the conversion of cultivated lands to tidal restoration. Combined with other conservation lands in the Plan Area and assuming that cultivated land uses will otherwise continue to provide habitat value to covered species in the Plan Area, achieving this objective will address the effects of covered activities on cultivated land values and conserve greater sandhill crane and other covered species associated with cultivated lands."</p> <p>Comment: Recommend including some efforts toward monitoring to support and guide these goals and objectives.</p> <p>Comment: Add 'wintering populations of' greater sandhill cranes...</p> <p>Comment: Another way to state benefits: sustaining annually cropped open lands and assuring that a substantial portion of this...</p> <p>Comment: Recommend adding target population that protected lands will support</p> <p>Comment: Compliance monitoring will be used to track this objective. This is described in...</p> | <p>transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 170 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-240 to 241</p> <p>"Objective CLNC1.2 Benefits: Achieving this objective will promote connectivity of suitable cultivated lands to provide for larger parcels of suitable greater sandhill crane wintering habitat. Greater sandhill cranes are highly traditional to roosting sites within the Greater Sandhill Crane Winter Use Area and suitable cultivated land foraging habitat must be in close proximity to these sites to sustain long-term use patterns. Therefore, protecting lands that are adjacent or near traditional crane roosts or foraging habitats will help to sustain and expand these existing use patterns. For example, with the increase in crane use of lands on and surrounding the Stone Lakes National Wildlife Refuge (Appendix 2.A, Covered Species Accounts), protecting and managing adjacent lands may help to increase use of this area and expand the cranes' winter distribution within Conservation Zone 4."</p> <p>Comment: Have high fidelity.</p> <p>Comment: ...Greater sandhill cranes utilize the same roost sites year after year therefore suitable cultivated...</p> <p>Comment: And protect</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 171 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-242</p> <p>"Objective GSHC1.2: To create additional high-value greater sandhill crane winter foraging habitat, at least 10% of the habitat protected under Objective GSHC1.1 will involve</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality,</p> |

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| | | <p>acquiring low-value habitat or non-habitat areas and converting it to high- or very high-value habitat. Created habitat will be within 2 miles of known roosting sites in Conservation Zones 3, 4, 5, and/or 6 and will consider sea level rise and local seasonal flood events, greater sandhill crane population level, and the location of habitat loss."</p> <p>Comment: Not necessarily a bad idea, but if the best outcome is to preserve as much high quality forage land within the 2 mile zone around existing roost sites, it might make more sense to use the funds to buy already suitable land if it is cheaper and more can be acquired. With the amount of conversion to vineyards, we need to ask ourselves what approach will yield the most preserved habitat for the cranes. It may be better to up the acreage rather than stipulate the 10% conversion.</p> | <p>transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 172 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-242</p> <p>"Objective GSHC1.4: In addition to the 320 acres of created managed wetland greater sandhill crane roosting habitat (Objective GSHC1.3), create two wetland complexes [insert]approximately 180-270 acres in size[insert] within the Stone Lakes National Wildlife Refuge [delete]project boundary[delete] [insert]Project Boundary[insert]. The complexes will be no more than 2 miles apart and will help provide connectivity between the Stone Lakes and Cosumnes [insert]River Preserve[insert] greater sandhill crane populations [insert]habitat[insert]. Each complex will consist of at least three wetlands totaling 90 acres of greater sandhill crane [insert]that meet criteria for[insert] roosting habitat, and will be [insert]located within[insert] protected in association with other protected natural community types (excluding [delete]nonhabitat[delete] [insert]non-habitat[insert] cultivated lands) at a ratio of at least 2:1 uplands to wetlands (i.e., two sites with 90 acres of wetlands each). One of the 90-acre wetland complexes may be replaced by 180 acres of cultivated lands (e.g., [insert]rice or[insert] cornfields) that are flooded [insert]to suitable depths[insert] following harvest to support roosting cranes and provide highest-value foraging habitat, provided such substitution is consistent with the long-term conservation goals of Stone Lakes National Wildlife Refuge for [insert]the[insert] greater sandhill crane."</p> <p>Comment: Wetland complex size is now stipulated in CM10, consistent with discussions we had at the December 2013 Stone Lakes National Wildlife Reserve meeting.</p> <p>Comment: Our editors prefer not to use capitalization.</p> <p>Comment: Okay, revised</p> <p>Comment: ?? Comment below specifies that it be not just about habitat but about populations. No change -- since the objective calls for creating habitat, this is a given. The intended outcome is to connect populations.</p> <p>Comment: This is specified in CM10</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 173 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-242</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP</p> |

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| | | <p>"Objective GSHC1.5: Create an additional 95 acres of roosting habitat within 2 miles of existing permanent roost sites. The habitat will consist of active cornfields that are flooded following harvest to support roosting cranes and that provide highest-value foraging habitat. Individual fields will be at least 40 acres and can shift locations throughout the Greater Sandhill Crane Winter Use Area, but will be sited with consideration of the location of roosting habitat loss and will be in place prior to roosting habitat loss."</p> <p>Comment: 1 mile would be better. And there should be a minimum one-year overlap, i.e. new roost area should be in place 1 year before loss of existing roost area.</p> <p>Comment: What is definition of "active" cornfield? Cranes utilize cornfields harvested for grain, but there is little left for cranes in silage fields.</p> <p>Comment: Another decent idea, but consideration should be given to the flooding of the cornfields for roosting in the overall context of the amortized schedule of flooding cornfields, and other high value forage fields, to maximize the forage benefit to cranes by ensuring forage availability throughout their entire stay. Basically, fields should be flooded anyway on an amortized schedule to allow the cranes access to fossorial prey after they have consumed the available waste grain left over from harvest.</p> | <p>Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 174 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-242 to 243</p> <p>"Objective GSHC1.1 Rationale: ... many of the 3 cultivated lands in the Winter Use Area have been converted from crop types that provide habitat for 4 the species to unsuitable vineyards [insert]and orchards[insert]."</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |
| 1562 | 175 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-243</p> <p>"Objective GSHC1.1 also specifies that 80% of this foraging habitat will be managed at the highest habitat value in any given year (Table 3.3-4). Waste corn is the key food item for greater sandhill cranes in the Delta; therefore corn is considered the highest-value crop type. Rice is also a very high- value type, but only a relatively small proportion of the Winter Use Area is capable of supporting rice agriculture. Because crane reserves will represent a relatively small proportion of the available habitat within the Winter Use Area, managing the majority of this area to maximize food value for cranes could be important in sustaining the winter population. Therefore, 80% of the crane reserve acreage will be maintained in the highest-value crop types. The remaining 20% will be managed as at least high-value habitat (Table 3.3-4), which allows for crop rotations and other factors that could influence agricultural productivity. Sea level rise and local seasonal flood events will be considered when siting conservation lands, because crane foraging habitat is likely to become unsuitable at lower elevations with sea level rise as these areas become flooded. Additionally, crane habitat may become unsuitable as a result of large flood events within river floodplains. The minimum patch size is relatively large (160 acres) to minimize the potential effects of human-associated visual and noise</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>disturbances."</p> <p>Comment: Is the 80% based on crop rotation requirements to maintain soil fertility or prescriptive solely for cranes? Long-term soil viability needs to be maintained and if the 80% is prescriptive, then greater acres may be required to accomplish what is needed here while maintaining soil health.</p> <p>Comment: [Change 'as a result of' to] 'during'</p> | |
| 1562 | 176 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-243</p> <p>Table 3.3-6 Assigned Greater Sandhill Crane Foraging Habitat Value Classes for Agriculture Crop Types has alfalfa and irrigated pasture in the High category.</p> <p>Comment: New data indicate that greater sandhill crane rarely use alfalfa (Ivey, pers. Comm.) Recommend moving alfalfa to Medium category. Why was dry pasture of a minimum size not included?</p> <p>Comment: Note that greater sandhill crane does not use alfalfa.</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 177 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-243 to 244</p> <p>"Objective GSHC1.2 Rationale: Achieving this objective will enhance or create foraging habitat by requiring that 10% of the lands protected under GSHC1.1 be converted from an initial low- or no-value crop type to a high- or very high-value crop type (Table 3.3-4). Requiring that 10% (730 acres) of the crane reserves be created or enhanced by converting unsuitable crops to high-value crops will help to redress the past conversion from high-value to low-value crop types. The strategy involves targeting lands [insert]least vulnerable to sea level rise[insert] in Conservation Zones 3, 4, 5, and/or 6, which are zones in the Plan Area that are [insert]included in[insert] [delete]include[delete] the Winter Use Area and do not include the lands most vulnerable to sea level rise. Sea level rise and local seasonal flood events will be considered when [insert]identifying[insert] siting conservation lands because crane foraging habitat is likely to become unsuitable at lower elevations with sea level rise as these areas become flooded [insert]due to sea level rise[insert]. Additionally, crane habitat may [insert]periodically[insert] become unsuitable as a result of large flood events [insert](100-year events)[insert] within river floodplains."</p> <p>Comment: Does this really accomplish anything when so much conversion is occurring? In the end, is not the goal to have the greatest number of acres of high value habitat in proximity to roosting? Has anyone analyzed if using the additional expense for re-conversion would be better spent acquiring more land to begin with? What is gained if a lot of money is spent to reconvert when perfectly suitable high quality habitat is simultaneously being converted by others to vineyards? Vineyards and orchards should be purchased and re-converted when no other suitable acres are available.</p> <p>Comment: Not necessarily targeting the lands least vulnerable to sea level rise. Sea level</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment.</p> |

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| | | <p>rise will be a consideration, in addition to the other criteria. There Will be further discussion in this regard at the crane TAC meetings.</p> <p>Comment: Incorporated this revision</p> <p>Comment: Too specific</p> <p>Comment: Is this the event we are targeting for avoidance? My impression was that...</p> | |
| 1562 | 178 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-244</p> <p>"Objective GSHC1.3 Rationale: Managed wetlands provide suitable foraging habitat and potential roosting habitat for greater sandhill cranes. Achieving this objective may increase the number and distribution of crane roost sites in the Greater Sandhill Crane Winter Use Area by creating 320 acres of greater sandhill crane roosting habitat within [insert]on[insert] managed seasonal [delete]wetland[delete] [insert]wetlands[insert]. Currently, the Plan Area contains 7,340 acres of greater sandhill crane habitat, 86% of which is within existing conservation lands. Creation of at least 320 acres of managed [delete]wetland[delete] [insert]wetlands[insert] will increase the extent of protected habitat to 91%. The new crane roosts, each at least 40 acres in size, will supplement the existing network of roosts in the Winter Use Area. The rationale for [delete]conservation[delete] [insert]conserving[insert] lands in Conservation Zones 3, 4, 5, or 6, with consideration of sea level rise and local flood events, within 2 miles of existing permanent roost sites, is provided in Objective GSHC1.2, above. The managed wetlands will be conserved in association with other natural community types at a ratio of 2:1 upland to wetland to provide buffers around the wetlands that will protect cranes from the types of [insert]various[insert] disturbances that would otherwise result from adjacent roads and developed areas (e.g., roads, noise, visual disturbance, lighting [insert], domestic animals[insert]). This is the average upland to wetland ratio for crane roosting habitat on Stone Lakes National Wildlife Refuge (McDermott pers. comm.)."</p> <p>Comment: revised</p> <p>Comment: revised</p> <p>Comment: revised</p> <p>Comment: I do not think this really adds anything. Did not revise.</p> <p>Comment: Revised (pets)</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 179 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-244</p> <p>"Objective GSHC1.4 Rationale: Objective GSHC1.4 ensures that 180 [insert]270-450[insert] acres of crane roosting habitat will be constructed within the Stone Lakes National Wildlife Refuge [delete]project boundary[delete] [insert]Project Boundary[insert] (Figure 3.3-7) [insert], the area for which the refuge has authority to</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the</p> |

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| | | <p>acquire land or easements[insert]. Achieving this objective will promote continued use and expanded use by cranes onto [insert]in[insert] the Stone Lakes National Wildlife Refuge and surrounding lands and will provide additional connectivity between these lands and the Cosumnes River Preserve. Creating roosting habitat near the Greater Sandhill Crane Winter Use Area within the [insert] Stone Lakes National Wildlife Refuge Project Boundary[insert] refuge will [insert]improve access to[insert] facilitate use of underused [insert]underutilized[insert] cultivated land foraging habitat in [delete]that[delete] [insert]the[insert] area [insert]with the goal of expanding[insert] and expand the winter distribution [insert]of the wintering population[insert]. The strategy includes using newly created roosting sites as a management tool to attract cranes [insert]to higher elevation zones less prone to periodic flooding due to sea level rise, large flood events and/or levee failure[insert] out of low-elevation zones that have greater uncertainty to exist in the future, due to the potential for levee failure or flooding."</p> <p>Comment: It is 180-270 depending on types of roost provided, correct.</p> <p>Comment: See comment above. No change.</p> <p>Comment: Added.</p> <p>Comment: It is not just land connectivity that is involved here. It is connecting the two winter use populations of the refuge and the preserve.</p> <p>Comment: Are you referring to existing roosting and foraging areas within the Refuge?</p> <p>Comment: These edits were made, except that "underused" was not changed because it is synonymous with "underutilized", so the simpler term was retained.</p> | <p>adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |
| 1562 | 180 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-244 to 245</p> <p>"Objective GSHC1.4 Rationale: The area outside the Stone Lakes National Wildlife Refuge but within the refuge project boundary (the area for which the refuge has authority to acquire land or easements) has largely been converted to vineyards, which do not provide habitat for cranes. Additional areas within the [delete]project boundary[delete] [insert]Project Boundary[insert] and surrounding lands are threatened by future [delete]conversion[delete] [insert]conversions[insert] to vineyards [insert]as well[insert]. [insert]These[insert] [delete]Past conversion has[delete] [insert]past conversions have[insert] created an approximately 4-mile gap between wintering [delete]cranes[delete] [insert]crane roost and foraging site[insert] in the Stone Lakes and Cosumnes areas. Creating two wetland complexes no more than 2 miles apart in this area will [insert]expand roosting and foraging opportunities for cranes[insert] provide [insert]thus improving[insert] [delete]improved[delete] habitat connectivity between the Stone Lakes [insert]Basin [insert] and Cosumnes [insert] River Preserve[inert] crane populations. [insert]These wetland complexes] It will also ensure that conservation occurs in the vicinity of conveyance facility impacts, to offset [insert]disturbance[insert] losses that might otherwise cause some cranes to leave [insert]abandon[insert] the area, and in an area where the crane population is [insert]already[insert] constrained by urbanization to the east and sea level rise [insert]land conversion and future sea level rise[insert] to</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>the west. Conserved lands within the refuge project boundary [insert]Stone Lakes NWR Project Boundary[insert] will be transferred to the refuge to ensure management consistent with the rest of the refuge lands, therefore contributing to a regional management strategy for the crane."</p> <p>Comment: This gets to the idea of maintaining and expanding the core habitat.</p> <p>Comment: Recommendation: About 90% of the lower third of lands within the Stone...</p> <p>Comment: The lower third is nowhere near 90% non-crane habitat. "has largely been...</p> <p>Comment: Capitalize</p> <p>Comment: This definition should be following the first time SLNWR project boundary...</p> <p>Comment: Revisions made, except "The wetland complexes" -- not sure how that fits in.</p> <p>Comment: Do we need to address issue of reverter clauses, etc. that may potentially be...</p> <p>Comment: Revisions made</p> | |
| 1562 | 181 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-245</p> <p>"Objective GSHC1.4 Rationale: Creating several (3 to 5) [insert]a complex of 3-5[insert] wetlands in association with each other provides the ability to apply different management regimes to the wetlands, with different depths, timing, and duration of flooding. A diversity of conditions maximizes opportunities for establishing and retaining roosting cranes (McDermott pers. comm.). The wetland blocks provided in this objective are larger than the minimum block size stipulated in Objective GSHC1.3 because of the added need for conservation in this critical area where [insert]land[insert] conversion to vineyards, urbanization to the east, and sea level rise to the west threaten the wintering crane population."</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment.</p> <p>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> |
| 1562 | 182 | <p>[From ATT 12:]</p> <p>BDCP Page 3.3-245</p> <p>"Objective GSHC1.5 Rationale: This objective addresses the loss of winter-flooded corn fields that serve as both roosting habitat and highest-value foraging habitat within the Greater Sandhill Crane Winter Use Area. This type of crane roosting habitat is usually temporary as a result of seasonal changes in farm practices, crop rotational changes, or other management. This habitat type supplements the more static managed wetlands that serve as the primary roosting areas for cranes. These temporary roosting/foraging habitats allow cranes to vary their seasonal movement patterns and spread out into otherwise underused areas of the Delta; it also reduces opportunities for excessively dense roosting concentrations. Objective GSHC1.5 is designed to provide similar function by allowing fields to rotate through the crane use area within protected cultivated lands. This will serve as a secondary source of high-value crane roosting/foraging habitat and provide a dynamic element to the crane conservation program. This objective is intended</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. After release of the 2013 DEIR/EIS, the project facilities and tunnel alignment were substantially revised to reduce environmental impacts in the delta, including biological, air quality, transportation, visual. The project revisions and revisions to resource analyses are presented in the RDEIR/EIS, which largely address the concerns raised in this comment. For more information regarding the adequacy of mitigation measures for the Greater Sandhill Crane, please see Master Response 17.</p> |

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| | | <p>to offset loss of crane roosting habitat, and the compensatory roosting habitat will be in place prior to loss of roosting habitat as a result of water conveyance facility construction."</p> <p>Comment: This section conflates roosting with feeding in a way that infers that the...</p> <p>Comment: It also equally important to allow cranes a second opportunity.</p> <p>Comment: This terminology is not used for an HCP -- the term "would" is more appropriate for an EIR/EIS.</p> <p>Comment: What is the issue with dense roosting? Is this to keep disease from spreading?</p> <p>Comment: But are we not really talking about a hedge against abandonment rather than the physical loss of roosting sites?</p> | |
| 1562 | 183 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-81</p> <p>Conservation Measure 3</p> <p>Table 3.3.2-2 [3.4.3-1] Natural Community Siting and Reserve Design Requirements</p> <p>"6,600 acres will comprise existing seasonal, semipermanent, and permanent wetlands"</p> <p>Comment: This section is confusing. Why is this here given its low value to greater sandhill cranes?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 184 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-85</p> <p>Conservation Measure 3</p> <p>Table 3.3.2-2 [3.4.3-1] Natural Community Siting and Reserve Design Requirements</p> <p>"Roosting habitat will be in place prior to removal of roosting habitat from construction of water conveyance facilities"</p> <p>Comment: This is much improved.</p> | No issues related to the adequacy of the environmental impact analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS were raised. |
| 1562 | 185 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-91</p> <p>"The Implementation Office will secure and protect lands (per the location requirements described in Table 3.4.3-1) to be restored, enhanced, and/or managed as greater sandhill crane roosting and foraging habitat."</p> <p>Comment: What agency will be in charge of the implementation office?</p> | As described in Chapter 7 of the 2013 Public Draft, the implementation office would be overseen by a Program Manager appointed by DWR, Reclamation, and the participating state and federal water contractors. All permittees will be responsible for the oversight of the implementation office. |

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| 1562 | 186 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-91</p> <p>Table 3.3.2-6 [3.4.3-2] Greater Sandhill Crane Habitat Values</p> <p>Comment: Note that greater sandhill crane does use alfalfa. See above.</p> | <p>Alfalfa is included in the greater sandhill crane habitat model as moderate-value habitat. Impacts to alfalfa agriculture lands will be counted as a habitat loss for greater sandhill crane. Conservation lands for greater sandhill crane, however, must be high or very high value habitat value types. That is, alfalfa lands conserved for Swainson's hawk will not be counted toward crane conservation goals.</p> |
| 1562 | 187 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-195</p> <p>[Conservation Measure 10] "also provides for creation of 500 acres [Comment: Are these in addition to the 640 acres provided in GSHC 1 Objectives?] of managed wetlands consisting of greater sandhill crane roosting habitat in the Greater Sandhill Crane Winter Use Area (Figure 2.A.19-3, Greater Sandhill Crane Foraging Habitat and Associated Value Rankings, in Appendix 2.A) in Conservation Zones 3, 4, 5, or 6 by year 10 (250 acres during years 1 through 5 and 250 acres during years 6 through 10).</p> <p>"Creation of greater sandhill crane roosting habitat is necessary to offset adverse effects to roosting habitat resulting from covered activities, and to further contribute to the conservation of this species. In the Delta region, the conversion of suitable roosting habitat to unsuitable cover types, particularly orchards and vineyards, has altered the distribution and behavior of wintering greater sandhill cranes."</p> <p>Comment: No, Conservation Measure 10 describes how the objectives related to managed wetland creation will be implemented. The 500 acres includes the 320 acres from Objective GSHC 1.3 and the 180 acres from Objective GSHC 1.4</p> <p>Comment: Is this an offset, a mitigation measure, an actual conservation measure intended to improve the available habitat, or something else?</p> <p>Comment: What and where is the loss of suitable (by inundation depth and sightline) roosting habitat from these two factors?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 188 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-196</p> <p>"Sites for restoration will be selected that are not expected to be affected by sea level rise."</p> <p>Comment: Inundated due to sea level rise?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1.</p> |
| 1562 | 189 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-196</p> <p>"Sites will also be selected to avoid areas that experience local seasonal flood events that may be incompatible with the habitat management needs for greater sandhill crane."</p> <p>Comment: Where is this double counting for habitat reconciled? The idea is good to</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |

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| | | maintain the supporting upland habitat and buffers, but it lacks detail and scientific foundation as described. | |
| 1562 | 190 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-196</p> <p>"At least 180 of the 500 acres of managed wetlands will be created to meet Objective GSHC1.4. This will consist of two 90-acre wetland complexes within the Stone Lakes National Wildlife Refuge [delete]project boundary[delete] [insert]Project Boundary] (Figure 3.3-6)."</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. |
| 1562 | 191 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-198</p> <p>"Greater sandhill crane roost sites will be created as managed seasonal wetlands using the following specifications. A site-specific management plan will be prepared for each roost site, which will include details on water management, plant composition, timing of flood-up and drawdown, vegetation management and control, access, and spring-summer management."</p> <p>Comment: Recommend including a requirement that the wetlands be monitored for crane use each season to inform management actions.</p> <p>Comment: This section is confusing. Created wetlands or managed wetlands and then cultivated?</p> <p>Comment: Should this heading be "Roost Sites"?</p> <p>Comment: Monitoring will be addressed under the monitoring and adaptive management section of the CM and Appendix 3E. We are currently developing this monitoring program.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 192 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-198</p> <p>"Roost sites will be developed as a series of shallow [insert]3-8 inches deep[insert], open ponds separated by a system of checks and levees."</p> <p>Comment: added</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 193 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-198</p> <p>"In addition to the presence of water, food availability, and loafing opportunities, selection of roosting sites by greater sandhill cranes is based in part on predator avoidance. Therefore, the development of the ponds and checks will consider the ability of predators to access roosting cranes along checks and levees."</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |

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| | | Comment: These factors are correct; how will the checks and levees not be highways for foxes and coyotes? | |
| 1562 | 194 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-198</p> <p>"Selected roost sites will have direct access to sufficient irrigation water to maintain required water depths."</p> <p>Comment: How many are "selected" and why not all roost sites?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 195 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-216</p> <p>"Access to areas that support nesting covered bird species will be restricted during the nesting season."</p> <p>Comment: This seems like generic text, which may not apply to greater sandhill cranes.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 196 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-216</p> <p>Conservation Measure 11: Access Control</p> <p>Comment: As noted above note that monitoring efforts should be conducted during the crane wintering season.</p> <p>Comment: See response above. Monitoring will be covered in different sections, but we are developing.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 197 | <p>[From ATT 12:]</p> <p>BDCP 3.4-219</p> <p>"Flood-up of roosts will begin by September 1 and drawdown will begin no earlier than March 15."</p> <p>Comment: The cranes are arriving increasingly early -- August 7 this year. Some adaptive management should be employed here to accommodate earlier arrival times if the trend continues.</p> <p>Comment: The early arrival was a single event thus far, and should not influence the definition of the normal winter season. If in the future the normal winter season changes, adaptive management will be used to adjust.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 198 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-219</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. |

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| | | <p>"Vegetation at roosting sites will be managed to ensure no more than 50% cover of tall emergent plants, such as tules (Schoenoplectus spp.), cattails (Typha spp.), trees, and large shrubs."</p> <p>Comment: 50% cover seems high given the sightline requirements.</p> | |
| 1562 | 199 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-236</p> <p>"Bulrush/cattail vegetation will be burned, mowed, or disced every 2 to 5 years to remove dead growth and encourage the development of new vegetative structure."</p> <p>Comment: What about invasive weed management?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. The prevalence of non-native species in the Delta is described in 2013 Public Draft Section 2.3.4, where each natural community description contains a subsection describing the prevalence and ecological consequences of non-native species in that natural community. The proposed project will incorporate existing Conservation Measures from the BDCP as Environmental Commitments (ECs) to further address the issue of non-native species (RDEIR/SDEIS Appendix 3B Section 3B.5). EC 11 Natural Communities Enhancement and Management describes how non-native vegetation will be disturbed or removed. Restoration ECs may have non-native weed control through operation and maintenance of restored sites (EC 3, 4, 7, 8, 9, 10).</p> |
| 1562 | 200 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-236</p> <p>"Cropping patterns will be managed on an annual basis to meet the acreage and habitat requirements set forth in the biological goals and objectives (Table 3.3-1), siting and reserve design requirements (Table 3.3.2-2 [3.4.3-1]), and to be in rough proportionality with impacts (Chapter 6, Section 6.1.2, Maintaining Rough Proportionality)."</p> <p>Comment: Confusing section given the impacts are one element, but the need to improve conditions for species is additional. How does this CM achieve that?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 201 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-236</p> <p>"Crops with minimum acquisition requirements will need to be rotated to other crops types periodically. Based on previous use patterns, the reserve system is expected to always have enough land in nonessential crops (e.g., irrigated crops other than alfalfa, rice, or corn) to allow for rotation into essential crops to ensure that minimum standards for these essential crops are met. Land cultivation patterns will be monitored to determine the extent to which the needs of each covered species are being met at any point in time."</p> <p>Comment: The feasibility of this approach should be vetted with farmers.</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1.</p> |
| 1562 | 202 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-236</p> <p>Enhancement and Management Guidelines and Techniques</p> <p>Comment: Seems fine for foraging, but under what conditions could this impact cranes roosting?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |

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| 1562 | 203 | <p>[From ATT 12:]</p> <p>BDCP Page 3.4-236</p> <p>"Where feasible, a portion of corn or grain fields will be left unharvested to increase the quantity of forage available to greater sandhill cranes."</p> <p>Comment: The ambiguous and unenforceable element of "where feasible" moots this section. Please define an actual quantity/area.</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1.</p> |
| 1562 | 204 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-24</p> <p>"Storage sites on Staten Island will be sized and located in coordination with USFWS, CDFW, and greater sandhill crane experts to minimize direct and indirect effects on greater sandhill crane."</p> <p>Comment: Or removed immediately if necessary.</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 205 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-54</p> <p>"If covered activities are to occur during greater sandhill crane wintering season (September 15 through March 15) in the Greater Sandhill Crane Winter Use Area (Appendix 2.A, Figure 2.A-19-2), the following avoidance and minimization measures will be implemented."</p> <p>Comment: With the last couple of years yielding very early arrivals, this date may need to be re-visited. Also given potential climate change seasonality.</p> | <p>The commenter notes that cranes have arrived earlier than September 15th over the past two years. Despite these early arrivals, the definition of the normal winter season is September 15 through March 15. If in the future the normal winter season changes, adaptive management (see Table 3.6-9 in the BDCP) will be used to adjust.</p> |
| 1562 | 206 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-54</p> <p>"Construction will be minimized during the sandhill crane wintering season to the extent practicable in light of project schedule and cost and logistical considerations."</p> <p>Comment: This hardly seems like it meets avoidance and minimization requirements. And, not enforceable, so meaningless. For purposes of the review, it will need to be assumed that it is never practicable for determining potential impacts.</p> | <p>The commenter cites one of the bullets under the Timing section of AMM20 Greater Sandhill Crane. The recommended timing is only one of multiple measures listed in AMM20 to avoid and minimize effects on sandhill cranes and their habitat. The AMM as a whole is enforceable as it will be part of the Mitigation, Monitoring, and Reporting Program (MMRP) for the project. The overall goal is to avoid and minimize impacts to sandhill cranes yet the analysis in the EIR/EIS does concede that there will be impacts on the species and that the intent of the AMMs are to reduce the severity of these effects.</p> <p>The MMRP itself is enforceable. If a failure to mitigate or comply with mitigation measures is reported by the Project Mitigation Monitor, the lead agency, in conjunction with other permitting or monitoring entities, may in its respective jurisdiction, may act to require correction of such failure. Corrective actions include, but are not limited to, (1) written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) stop-work orders; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.</p> |
| 1562 | 207 | <p>[From ATT 12:]</p> <p>BDCP 3.C-54</p> <p>"The loudest construction activities, such as pile driving, that need to occur for only</p> | <p>The commenter cites one of the bullets under the Timing section of AMM20 Greater Sandhill Crane. The recommended timing is only one of multiple measures listed in AMM20 to avoid and minimize effects on sandhill cranes and their habitat. The AMM as a whole is enforceable as it will be part of the Mitigation, Monitoring, and Reporting Program for the project. The overall goal is to avoid and minimize impacts to sandhill cranes yet the analysis in the EIR/EIS does concede that there will be impacts on the species and</p> |

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| | | <p>limited time periods should be scheduled for periods outside the crane wintering season to the extent practicable."</p> <p>Comment: Again, not enforceable and therefore not really an AMM.</p> | <p>that the intent of the AMMs are to reduce the severity of these effects.</p> <p>The MMRP itself is enforceable. If a failure to mitigate or comply with mitigation measures is reported by the Project Mitigation Monitor, the lead agency, in conjunction with other permitting or monitoring entities, may in its respective jurisdiction, may act to require correction of such failure. Corrective actions include, but are not limited to, (1) written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) stop-work orders; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.</p> |
| 1562 | 208 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-54</p> <p>"This performance standard may be accomplished through any combination of the following, with preference given to alignment of lines and removal, relocation, or undergrounding of existing lines."</p> <p>Comment: This is significantly better in terms of description. The performance standard is vague and unenforceable.</p> | <p>The commenter is referring to Appendix 3C of the BDCP and provides an opinion on the language included. The commenter's opinion is noted. AMM 20, which is incorporated in the Draft EIR/EIS and has been updated in the Recirculated Draft EIR/Supplemental EIS, under the BDCP is part of the proposed project and under Alternative 4A the AMMs referenced in the Draft EIR/EIS will be incorporated as part of the Mitigation, Monitoring, and Reporting Program that will be adopted once the EIR/EIS is certified. No changes are proposed to Chapter 12 of the draft EIR/EIS.</p> |
| 1562 | 209 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Install bird strike diverters on existing and new lines in risk zones. For installation of diverters on existing lines, prioritize lines in the highest risk zones. (Bird diverters will be required on all new lines.)"</p> <p>Comment: Should include language for long-term maintenance of diverters.</p> | <p>The commenter is asking that language be added for the long-term maintenance of diverters referred to in AMM 20 in Appendix 3C of the BDCP. Long-term maintenance of diverters has been included in AMM20 Greater Sandhill Crane and was included in the Recirculated Draft EIR/Supplemental EIS.</p> |
| 1562 | 210 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Manage habitat to shift cultivated land roost site locations away from risk zones created by new transmission lines. This can be accomplished by not flooding past or current roosting sites located in the vicinity of the new transmission line, thereby eliminating the sites' attractiveness as roosting habitat; and establishing new roost site equal or greater in size at new location in a lower risk zone but within 1 mile of the affected site."</p> <p>Comment: This is a new and unanalyzed impact on the greater sandhill crane. This can cause more harm and lead to greater loss of habitat use.</p> | <p>Please see response to comment 1562-1. The measure the commenter is referring to was developed in conjunction with species expert Gary Ivey who deemed the measure biologically feasible.</p> |
| 1562 | 211 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"A wildlife agency-approved, qualified biologist familiar with crane biology and experienced with crane habitat management will design the new roost site and direct implementation of the roost site establishment."</p> | <p>The commenter is referring to the text of AMM20 in the BDCP and proposes monitoring transmission lines to measure crane fatalities from bird strike. Using transmission line monitoring to detect birdstrike does not provide an accurate measure of fatalities because most of the strikes are at night and the carcasses disappear very quickly and based on experience crane biologists have found that monitoring for carcasses is not effective. Radio-tagged birds that were lost to coyotes have been searched for and there was no evidence found of those birds. The method used to estimate loss from bird strike is based on crane densities, which is provided in the BDCP in Appendix 5E.</p> |

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| | | <p>Comment: This does nothing to address strikes resulting from birds flying from roost sites to forage sites in the fog.</p> <p>Comment: Monitoring should be incorporated into the management practices.</p> | |
| 1562 | 212 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Final transmission line design will be determined in coordination with the wildlife agencies and the approved/qualified crane biologist to achieve the performance standard and ensure the measures described herein are incorporated."</p> <p>Comment: The obvious best design, as already admitted, is undergrounding the lines, period. Consultation would not be needed to determine this. Inclusion of wildlife experts in the transmission line negotiation process with the power provider should be required.</p> | <p>The commenter asks for the inclusion of wildlife experts in the negotiation of transmission line placement. AMM 20 has been revised for the Recirculated Draft EIR/Supplemental EIS to include language stating that the agencies will be involved with negotiations related to placement, not just in approving the final plan.</p> |
| 1562 | 213 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Prior to powerline construction, the approved/qualified crane biologist will coordinate with the Implementation Office to develop a plan for achieving the performance standard (no net increase in bird strike hazard to greater sandhill crane populations in the Plan Area) using a combination of the measures described above."</p> <p>Comment: Approved and/or qualified, by whom: DFW, the Lead Agency? See two bullets above. Please be consistent with nomenclature or identify the change in standard.</p> | <p>The commenter is referring to AMM 20 in Appendix 3.C of the BDCP and asks that the approving entity for qualified biologist be identified. AMM20 has been revised for the Recirculated Draft EIR/Supplemental EIS and the text currently reads a "wildlife agency approved/qualified biologist."</p> |
| 1562 | 214 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Powerline construction will be implemented consistent with this plan."</p> <p>Comment: The 800 lb gorilla here that is not mentioned is that process to date has not included a feasibility or cost analysis for the various options, including undergrounding. DWR has simply decided that it need not underground the lines and has not supported that with any analysis.</p> | <p>The commenter claims that the feasibility of undergrounding transmission lines has not been evaluated. DWR has conducted a feasibility study and cost analysis of various powerline options which is under internal review. Undergrounding powerlines is one of the options that is provided under AMM20 Greater Sandhill Crane. Please see responses to comments 1562-21 through 27 for addition information regarding transmission lines.</p> |
| 1562 | 215 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-55</p> <p>"Permanent powerlines will avoid crane roost sites."</p> <p>Comment: While this is certainly appreciated, the idea of protecting greater sandhill crane corridors is a primary objective, yet ignored in the practical sense. That objective needs to pass through all of the measures or it simply is not supported.</p> <p>Comment: New roost sites are contemplated in this Plan and they would need to be avoided as well even though they do not as yet exist. This type of planning consideration</p> | <p>The commenter provides an opinion on avoidance measures identified in AMM20. As described in the Recirculated Draft EIR/Supplemental EIS ,the lead agencies have redesigned the project to avoid permanent impacts and the construction of new transmission lines on Staten Island, which holds the greatest concentration of wintering greater sandhill cranes. The only permanent transmission lines currently included are around Clifton Court Forebay, which is generally outside of crane core use areas.</p> |

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| | | needs to be integrated throughout the whole of the Plan area where cranes are involved. | |
| 1562 | 216 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-56</p> <p>"Use of construction equipment greater than 50 feet in height will be minimized to the extent practicable in light of project schedule and cost and logistical considerations."</p> <p>Comment: No avoidance and minimization requirements. And, not enforceable, so meaningless.</p> | <p>The AMM as a whole is enforceable as it will be part of the Mitigation, Monitoring, and Reporting Program for the project. The overall goal is to avoid and minimize impacts to sandhill cranes yet the analysis in the EIR/EIS does concede that there will be impacts on the species and that the intent of the AMMs are to reduce the severity of these effects.</p> <p>The MMRP itself is enforceable. If a failure to mitigate or comply with mitigation measures is reported by the Project Mitigation Monitor, the lead agency, in conjunction with other permitting or monitoring entities, may in its respective jurisdiction, may act to require correction of such failure. Corrective actions include, but are not limited to, (1) written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) stop-work orders; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.</p> <p>A number of measures are listed here such that even if not all of them are implemented, the performance standard can still be achieved.</p> |
| 1562 | 217 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-56</p> <p>"CM1 final design will minimize construction-related loss of greater sandhill crane foraging habitat to the extent practicable."</p> <p>Comment: Again, this is language that allows much latitude in performance and requires nothing.</p> | <p>The AMM as a whole is enforceable as it will be part of the Mitigation, Monitoring, and Reporting Program for the project. The overall goal is to avoid and minimize impacts to sandhill cranes yet the analysis in the EIR/EIS does concede that there will be impacts on the species and that the intent of the AMMs are to reduce the severity of these effects.</p> <p>The MMRP itself is enforceable. If a failure to mitigate or comply with mitigation measures is reported by the Project Mitigation Monitor, the lead agency, in conjunction with other permitting or monitoring entities, may in its respective jurisdiction, may act to require correction of such failure. Corrective actions include, but are not limited to, (1) written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) stop-work orders; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.</p> |
| 1562 | 218 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-56</p> <p>"Artificial noise barriers may be installed to decrease noise levels at foraging habitat below 50 dBA Leq (1 hour). However, the visual effects of noise barriers on sandhill cranes are unknown; therefore, all other options to reduce noise will be implemented before installing noise barriers in close proximity to crane habitat."</p> <p>Comment: 50 dBA is meaningless for bird disturbance. Use a maximum peak as well as an average dBA.</p> | See response to comment 1562-107. |
| 1562 | 219 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-56</p> <p>"Enhance foraging habitat to avoid loss of foraging values that could otherwise result from unavoidable noise-related effects. The Implementation Office will enhance 0.1 acre of foraging habitat for each acre of foraging habitat to be indirectly affected within the 50 dBA Leq (1 hour) construction noise contour."</p> <p>Comment: This ratio is not based on any evidence of its effectiveness. 1:1 is typically the</p> | <p>The commenter has provided the notes from a Stone Lakes National Wildlife Refuge Meeting and suggests that a 1:1 mitigation ratio should be used for supercharged foraging habitat sites rather than a 0.1:1 ratio. Requirements were written into AMM20, developed in coordination with the SLNWR conservation working group, to address this. Supercharging would only need to be 0.1:1 (0.1 acre of supercharged corn is equivalent to an acre of harvested corn, according to Gary Ivey). A stipulation has been added that supercharged foraging sites must be in place one year prior to construction, and located outside of the sound buffer.</p> |

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| | | <p>minimum. The ratio of enhanced acres to directly impacted foraging habitat is also as much a temporal consideration as a spatial one. The amount of land contemplated for enhancement needs to be correlated to the length of the disturbance as well as the spatial dimension of that disturbance on the landscape. A long temporal exclusion from use of a foraging habitat would need to be mitigated by greater enhancements.</p> | |
| 1562 | 220 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-57</p> <p>"If a greater sandhill crane roost site is located within 0.75 mile of the construction area boundary, then to the extent practicable, nighttime (1 hour before sunset to 1 hour after sunrise) project activities will be relocated to maintain a 0.75-mile nondisturbance buffer. If this is not practicable, the following measures will be implemented to avoid and minimize effects on roosting greater sandhill cranes."</p> <p>Comment: Again, not enforceable avoidance/mitigation.</p> | <p>The AMM as a whole is enforceable as it will be part of the Mitigation, Monitoring, and Reporting Program for the project. The overall goal is to avoid and minimize impacts to sandhill cranes yet the analysis in the EIR/EIS does concede that there will be impacts on the species and that the intent of the AMMs are to reduce the severity of these effects.</p> <p>The MMRP itself is enforceable. If a failure to mitigate or comply with mitigation measures is reported by the Project Mitigation Monitor, the lead agency, in conjunction with other permitting or monitoring entities, may in its respective jurisdiction, may act to require correction of such failure. Corrective actions include, but are not limited to, (1) written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) stop-work orders; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.</p> |
| 1562 | 221 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-57</p> <p>"Avoid direct construction-related loss of roost sites. Activities will be designed to avoid direct loss of crane roost sites. This can be accomplished by siting activities outside identified crane roost sites or by relocating the roost site if it consists of cultivated lands (roost sites that consist of wetlands rather than cultivated lands will not be subject to relocation)."</p> <p>Comment: This is still unclear in terms of when relocation will be implemented. There is also not dear evidence that relocation of roost sites will be successful. The creation and re-occupancy of new sites can take several years if it happens at all.</p> | <p>The commenter states that it is unclear to them when relocation of roost sites will be implemented. AMM20 Greater Sandhill Crane now includes language that if roost sites are relocated, the new roost sites will be developed one-year prior to construction.</p> |
| 1562 | 222 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-57</p> <p>Comment: Efforts to identify and monitor potential [roost] sites should be conducted prior to establishment.</p> <p>Comment: Added: "Potential sites will be identified and monitored prior to establishment."</p> | <p>The commenter has provided a record of the text which was incorporated into AMM20 Greater Sandhill Crane (Appendix 3.C Avoidance and Minimization Measures, BDCP). The comment does not request any change to the text of Chapter 12 of the Draft EIR/EIS.</p> |
| 1562 | 223 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-57</p> <p>"Avoid and minimize construction-related noise effects on roost sites. Activities within 0.75 mile of crane roosting habitat will reduce construction noise during nighttime hours (from 1 hour before sunset to 1 hour after sunrise) such that construction noise levels do not exceed 50 dBA Leq (1 hour) at the nearest temporary or permanent roosts during periods when the roost sites are available (flooded). This can be accomplished by limiting</p> | <p>See response to comment 1562-107.</p> |

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| | | <p>construction activities that could result in noise levels above 50 dBA Leq (1 hour) at the roost site to day time only (from 1 hour after sunrise to 1 hour before sunset); siting nighttime project activities at a sufficient distance from crane roost sites to ensure that construction noise levels do not exceed 50 dBA Leq (1 hour) at the roost site; relocating cultivated land roost sites as described above; and/or installing noise barriers between roost sites within the 50 dBA Leq (1 hour) contour and the primary construction noise source areas, such that construction noise levels at the roost site do not exceed 50 dBA Leq (1 hour). The installation of noise barriers will be used only if the first three options cannot be implemented to the extent that noise levels do not exceed 50 dBA Leq (1 hour) at the roost site."</p> <p>Comment: See above. 50 rolling-averaged over an hour is not a protective measure by any definition. Substantiation for this measure based on GSC biology would be necessary to support its effectiveness.</p> | |
| 1562 | 224 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-57</p> <p>"If the roost site to be indirectly affected within the 50 dBA Leq (1 hour) noise contour is a wetland site rather than cultivated land, then the existing wetland site will not be removed. A new, cultivated land roost site will be temporarily established at a new location away from the disturbance (outside the 50 dBA Leq (1 hour) noise contour) but within 1 mile of the affected site, at a ratio of 1 acre created for each acre of roost site within the 50 dBA Leq (1 hour) noise contour."</p> <p>Comment: See Above.</p> | See response to comment 1562-107. |
| 1562 | 225 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-58</p> <p>"Screen all lights and direct them down toward work activities and away from the night sky and nearby roost sites."</p> <p>Comment: The typical temporary construction lights have several problems that need to be addressed here. The first is generator noise, the second is the lack of light control on the fixtures, and the third is the ease by which these can be misdirected. This section needs much greater detail and enforceable specificity.</p> | See response to comment 1562-108. |
| 1562 | 226 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-58</p> <p>"Install a visual barrier along portions of access routes where screening would prevent excessive light spill toward roost sites from truck headlights being used during nighttime construction activities. These visual barriers will meet the following performance criteria: The visual barrier will be a minimum of 5 feet high and will provide a continuous surface impenetrable by light. This height may be obtained by installing a temporary structure, such as fencing (e.g., chain link with privacy slats) or a semipermanent structure, such as a concrete barrier (e.g., a roadway median barrier or architectural concrete wall system)</p> | The commenter has provided notes from the Stone Lakes National Wildlife Refuge Working Group meetings. The commenter requests more substantial protection for sandhill cranes from potential visual effects of light during night time construction activities. These measures have been added to AMM20 Greater Sandhill Crane include additional measures such as committing to light shielding to keep lights pointed downward, implement light barriers for horizontal reflection of light off equipment, and ensuring that barriers are close to the light sources. |

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| | | <p>retrofitted with an approved visual screen, if necessary, to meet the required height. These barriers will not be installed immediately adjacent to crane foraging habitat, and placement will be coordinated with a qualified crane biologist approved by the wildlife agencies."</p> <p>Comment: This is a good attempt at a measure. It need more substantive protection, slats on chain link provide some glare protection but almost no abatement. Five feet needs to be from above the surface of the road, given the typical elevated position of the Delta roads. Otherwise, the measure provides no protection.</p> <p>Comment: What is minimum distance to habitat?</p> <p>Comment: See above.</p> | |
| 1562 | 227 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-58</p> <p>"Because of the density of greater sandhill cranes wintering on Staten Island and the importance of Staten Island to the existing population of the greater sandhill crane in the Plan Area, the final placement of conveyance facilities and RTM at this site will be minimized to the extent practicable, except where the use of RTM (reusable tunnel material) on the island affirmatively contributes to the sustainability of the population."</p> <p>Comment: "To the extent practicable" continues the problem with too much latitude in performance.</p> | The commenter states the importance of Staten Island to sandhill cranes. For the Recirculated Draft EIR/Supplemental EIS, the lead agencies have redesigned Alternative 4, and included Alternative 4A (the new preferred alternative), so that there are no permanent impacts (including RTM storage) and the construction of any new transmission lines on Staten Island. |
| 1562 | 228 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-58 to 59</p> <p>"It is expected that the RTM (reusable tunnel material) footprint on Staten Island will need to be reduced substantially from shown on the current conveyance facility footprint in order to meet the Staten Island performance standard. Some combination of the following measures will be implemented to achieve this reduction."</p> <p>Comment: These are not enforceable standards and the issue of whether the muck will be suitable for use in sensitive environments like Staten is not addressed.</p> | The commenter states the importance of Staten Island to sandhill cranes. For the Recirculated Draft EIR/Supplemental EIS, the lead agencies have redesigned Alternative 4, and included Alternative 4A (the new preferred alternative), so that there are no permanent impacts (including RTM storage) and the construction of any new transmission lines on Staten Island. |
| 1562 | 229 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-59</p> <p>"Remove RTM (reusable tunnel material) from Staten Island periodically during construction to minimize the RTM footprint."</p> <p>Comment: Muck should be moved only outside of greater sandhill crane use season.</p> | The commenter states the importance of Staten Island to sandhill cranes. For the Recirculated Draft EIR/Supplemental EIS, the lead agencies have redesigned Alternative 4, and included Alternative 4A (the new preferred alternative), so that there are no permanent impacts (including RTM storage) and the construction of any new transmission lines on Staten Island. |
| 1562 | 230 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-59</p> | The commenter voices their concern that the footnote in Appendix 3C of the BDCP (page 59) underestimates impacts. The 50dBA pile driving and general noise construction contour used to determine habitat loss is considered conservative. In addition, crane use days on Staten Island will be monitored, compared to a |

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| | | <p>"Prioritize placement of facilities and RTM (reusable tunnel material) in areas of [insert]no or[insert] low crane use. For example, the very northern end of Staten Island is an area of low crane use that would be a high priority for placement of facilities and RTM."</p> <p>Comment: added</p> <p>Comment: Footnote underestimates impacts based on lighting and noise Averages and trend analysis need to use appropriate statistics to make loss calculations.</p> | <p>baseline, and adaptively managed if necessary throughout the construction process. This approach was developed in tandem with crane experts and is likely setting a new standard for addressing visual and noise disturbance.</p> |
| 1562 | 231 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-59</p> <p>"In determining any long-term uses of RTM (reusable tunnel material) on Staten Island, priority will be given to uses that are consistent with the sustainability of greater sandhill crane habitat on the island."</p> <p>Comment: This is not a monitoring process, an avoidance/mitigation process, or an enforceable measure. Grossly inadequate.</p> | <p>The commenter is referring to the text of AMM20 in the BDCP. Alternatives 1A and 4 presented in the Draft EIR/EIS included RTM placement on Staten Island. Lead Agencies acknowledge the commenters opinion about the potential effects of RTM placement on Staten Island on sandhill cranes. Additionally, please note that Alternative 4 and Alternative 4A, now the new preferred alternative, have been redesigned and no longer include any RTM placement on Staten Island.</p> |
| 1562 | 232 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-59</p> <p>"RTM (reusable tunnel material) will be moved off the island after short-term use or storage unless a determination is made that long-term use of the RTM on Staten Island will not be detrimental to the crane population on the island."</p> <p>Comment: Immediate removal needs to be included as an available alternative if this is determined by the best science to be the appropriate option.</p> | <p>See response to comment 1562-231.</p> |
| 1562 | 233 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-70</p> <p>"The location and design of the proposed new transmission lines will be conducted in accordance with electric and magnetic field guidance adopted by the California Public Utility Commission (2006) EMF Design Guidelines for Electrical Facilities. The guidelines describe the routine magnetic field reduction measures that all regulated California electric utilities will consider for new and upgraded transmission line and transmission substation construction."</p> <p>Comment: These guidelines provide lowest protection for Agriculture, and Undeveloped land. They are simple models and do not use measurements and are not applicable for 50 kV. The Guidelines are so vague contextually as to not have any applicability in terms of cranes. For example, they state: "Low-cost magnetic field reduction measures will not be considered for undeveloped land such as open space..."</p> | <p>This comment is on the Draft BDCP and expresses an opinion about the magnetic field reduction measures of the California Public Utilities Commission and whether they are appropriate for protection of sandhill cranes. Current scientific evidence does not show conclusively that EMF exposure can increase health risks, and state and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate. However, in light of the scientific uncertainty and public concern about potential public health impacts from EMF exposure, the CPUC developed the EMF design guidelines, which are intended for new construction or major reconstruction of electric utility transmission, substation, and distribution facilities. Based on this, utility companies are required to consider the "low-cost, no-cost" EMF design guidelines (CPUC, 2006) in order to reduce potential health risks associated with power lines.</p> <p>The primary purpose of AMM30 is not reducing EMF exposure but rather to site lines to avoid and minimize line collisions for cranes and other bird species.</p> |
| 1562 | 234 | <p>[From ATT 12:]</p> | <p>The commenter's opinion is noted. The AMMs referenced in the EIR/EIS will be incorporated as part of the Mitigation, Monitoring, and Reporting Program that will be adopted once the EIR/EIS is certified.</p> |

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| | | <p>BDCP Page 3.C-70</p> <p>"The alignment of proposed transmission lines will be designed to avoid sensitive terrestrial and aquatic habitats when siting poles and towers, to the maximum extent feasible."</p> <p>Comment: Unenforceable.</p> | |
| 1562 | 235 | <p>[From ATT 12:]</p> <p>BDCP Page 3.C-70</p> <p>"Temporary transmission lines will be designed to avoid removal of wetted acres of vernal pools and alkali seasonal wetlands."</p> <p>Comment: What about other types of wetlands?</p> | <p>The commenter is referring to the text of AMM30 in the BDCP. AMM30 contains a commitment to avoid vernal pools and alkali seasonal wetlands. In addition, the alignment of proposed transmission lines will be designed to avoid sensitive terrestrial and aquatic habitats when siting poles and towers, to the maximum extent feasible.</p> |
| 1562 | 236 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-40</p> <p>3.3.2.1.1 [5.6.8.1.1] Permanent Habitat Loss, Conversion and Fragmentation"</p> <p>"Based on the current conveyance facility footprint and hypothetical restoration footprints, covered activities would result in the permanent loss, conversion, or fragmentation of up to 7,136 acres of modeled greater sandhill crane habitat (4% of its habitat in the Plan Area), including an estimated 71 acres of temporary roosting and foraging habitat and 7,065 acres of foraging habitat."</p> <p>Comment: How does this reconcile with the protection/net increase of a mere 533 ac?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 237 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-41</p> <p>Table 5.6-10. Total Amount of Greater Sandhill Crane Habitat Loss of cultivated land crops has alfalfa and alfalfa mixtures in the High category.</p> <p>Comment: These types should be moved to Medium because of recent data.</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 238 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-41</p> <p>Table 5.6-10. Total Amount of Greater Sandhill Crane Habitat Loss of cultivated land crops has native pasture in the Low category.</p> <p>Comment: What is the difference between native pasture and grassland?</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |
| 1562 | 239 | <p>[From ATT 12:]</p> | <p>No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127.</p> |

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| | | <p>BDCP Page 5.6-41</p> <p>Water Conveyance Facility Construction</p> <p>"The water conveyance facility and associated features as designed would result in the permanent removal of approximately 2,728 acres of greater sandhill crane habitat, including 29 acres of temporary roosting and foraging habitat and 2,699 acres of foraging habitat (Table 5.6-1). The temporary roosting and foraging habitat that would be permanently lost is located on Zacharias Island; the loss is a result of installation of a transmission line and associated access road."</p> <p>Comment: See above. Impacts greatly outweigh any protection and mitigation.</p> | |
| 1562 | 240 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-41</p> <p>"AMM20 Greater Sandhill Crane (Appendix 3.C) requires that the final transmission line alignment be designed to avoid crane roost sites; therefore, there will be no loss of crane temporary roosting and foraging habitat as a result of water conveyance facility construction once the facility is fully designed."</p> <p>Comment: Fully constructed or designed?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 241 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-42</p> <p>"Effects in the Cosumnes/Mokelumne ROA (restoration opportunity area) associated with tidal wetland restoration activities occur in low-value cultivated lands that are restored to become tidal wetlands. To be conservative, these effects are counted as a permanent loss of sandhill crane habitat. However, tidal wetland restoration may in some cases provide habitat value for cranes."</p> <p>Comment: Both of these arguments seem unsubstantiated. How many acres score as low value, and how would tidal have any value to cranes?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 242 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-42 to 43</p> <p>"A portion of the restored nontidal marsh is expected to be unsuitable for the crane as it will consist of open water that lacks emergent vegetation and is too deep to provide roosting or foraging habitat for this species."</p> <p>Comment: How much is open water then?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 243 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-43</p> <p>"The restored grasslands are expected to continue to provide value as foraging habitat for</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |

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| | | the crane." Comment: How much relative value in what category? | |
| 1562 | 244 | [From ATT 12:] BDCP Page 5.6-43 "Although this habitat will be restored within 1 year following construction, it will not necessarily be restored to its original topography and areas that were originally cultivated lands may be restored as grasslands." Comment: This describes permanent losses as temporary, which is it? What is the diminution of value and how does that get mitigated? | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 245 | [From ATT 12:] BDCP Page 5.6-44 to 45 3.3.2.1.4 [5.6.8.1.4] Effects of Ongoing Activities Operation and Maintenance "Operations and maintenance activities within 1,300 feet of construction could permanently, indirectly affect 8 acres of modeled greater sandhill crane habitat (Table 5.6-5). Maintenance of the aboveground water conveyance facilities could result in ongoing but periodic [delete]postconstruction[delete] [insert]post construction[insert] noise and visual disturbances that could affect greater sandhill crane use of surrounding habitat. These effects may include periodic vehicle use along the conveyance corridor, and inspection and maintenance of above-ground facilities. These potential effects will be minimized with implementation of AMM20, described in Appendix 3.C." Comment: What about emergency conditions, do all of these apply? | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 246 | [From ATT 12:] BDCP Page 5.6-45 "Marking transmission lines with devices that make the lines more visible to birds has been shown to dramatically reduce the incidence of bird mortality, including for sandhill cranes." Comment: Need to include placement of diverters and maintenance of diverters. | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 247 | [From ATT 12:] BDCP Page 5.6-45 "Install [insert]and maintain[insert] flight diverters on existing lines in the Greater Sandhill Crane Winter Use Area." | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |

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| 1562 | 248 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-46</p> <p>"Recreation on sites with crane roosts will be limited to public roadways and overlook areas, and no pets will be allowed onsite. With implementation of these measures, recreation-related effects on the greater sandhill crane are expected to be minimal."</p> <p>Comment: What are the descriptions of habitat fragmentation, predator increases, dogs, weeds, and other indirect but consequential effects of the project?</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 249 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-46</p> <p>"Results indicated that changes in total mercury levels in water and 26 fish tissues under future conditions with the BDCP were insignificant (Appendix 5.D, Attachment 27 5D.A, Bioaccumulation Model Development for Mercury Concentrations in Fish, Tables 5.D.A-1, 5.D.A-28 2, 5.D.A-3, and 5.D.A-4)."</p> <p>Comment: Is this an analysis of the mainstem Sacramento River? Greater sandhill cranes are not cormorants.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. |
| 1562 | 250 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-47</p> <p>"Along with minimization and mitigation measures and adaptive management and monitoring, CM12 Methylmercury Management is expected to reduce the amount of methylmercury resulting from the restoration of natural communities and floodplains."</p> <p>Comment: This section is confusing and potentially inaccurate. Tidal marsh is lost habitat, seasonally flooded areas have very few and limited BMPs for MeHg (methylmercury), despite assertions here.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-1. |
| 1562 | 251 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-47</p> <p>"Covered activities are expected to permanently remove up to 7,136 acres of modeled habitat for greater sandhill crane representing 4% of the total habitat in the Plan Area, including 71 (less than 1%) of its modeled temporary roosting and foraging habitat. While cultivated lands will be affected, this and other adverse habitat effects resulting in take are not expected to adversely affect the species' long-term survival and conservation because the affected areas represent a small proportion of habitat in the Plan Area impacts are quantified in areas that will be converted to usable habitat for the crane, and much of the affected habitat has relatively low value."</p> <p>Comment: This is the critical occupied core habitat for the crane and this section ignores that fact, despite introducing the concept at the beginning. It has very high value and functions to provide the last major refugia for the species. Protection of additional</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |

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| | | acreage does not replace the functional core area for the crane given its biology. This species is very slow to use new roosting habitat and the 'analysis' simply assumes they are interchangeable. | |
| 1562 | 252 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-48</p> <p>3.3.2.3 [5.6.8.3] Net Effects</p> <p>"Implementation of the BDCP [delete]will[delete] [insert]may[insert] result in a net permanent gain of modeled roosting and foraging habitat in the Plan Area of 533 acres."</p> <p>Comment: No guarantees of "if they build it, they will come".</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 253 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-48</p> <p>"Creation of roosting habitat will offset losses of this essential habitat element and facilitate use of other modeled foraging habitat."</p> <p>Comment: Without an identified funding source for the non-tunnel aspects of the plan, it is not clear this net increase in acreage will occur. Even if funding is found, the habitat may not be in place for 50 or more years.</p> | <p>As described in the 2013 Public Draft, funding for restoration needed to mitigate the loss of covered species habitat such as for greater sandhill crane will be provided by the participating state and federal water contractors. This mitigation funding was part of BDCP and is part of the new proposed project (Alternative 4A). In both cases, restoration to offset impacts would occur prior to impacts, as described in the 2013 Public Draft Chapter 6.</p> <p>For more information regarding funding sources please see Master Response 5.</p> |
| 1562 | 254 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-48</p> <p>"The extent of crane habitat in the Plan Area is declining as suitable crops are being converted to unsuitable crops (e.g., orchards, vineyards, row crops) or other land uses. The BDCP will help to arrest that decline by increasing protected habitat in the Plan Area by 10% (4,174 acres) (Table 5.6-7)."</p> <p>Comment: By exchanging occupied core area for theoretical new habitat.</p> <p>Comment: Not clear how the "10% increase" is derived.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1562 | 255 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-48</p> <p>"In addition to effects on the location and quality of modeled habitat, the proposed transmission lines have the potential to cause mortality through collision strike. However, adverse effects are reduced by an estimated 65% through installation of bird flight diverters on all new lines. Additional measures will be implemented, as described in AMM20, to reduce and offset bird-strike risk for cranes in the Plan Area."</p> <p>Comment: Not clear that the project will not increase mortality due to new lines or that bird diverters will be as effective as claimed.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. Please see responses to comments 1562-21 through 27 regarding transmission lines. |

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| 1562 | 256 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-49</p> <p>"Indirect effects on greater sandhill crane from construction activities will be reduced through project design improvements; creating high-value roosting and foraging habitat to attract cranes into areas away from construction activities; restricting the season and timing of activities near roost sites were feasible; shielding lights and directing lighting away from habitat; and installing noise and visual barriers between construction activities and crane habitat."</p> <p>Comment: Not clear how much reduction will actually occur since language is not mandatory in AMMs.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. Please see Master Response 22 regarding AMMs. |
| 1562 | 257 | <p>[From ATT 12:]</p> <p>BDCP Page 5.6-49</p> <p>"Overall, the BDCP will provide a net benefit to the greater sandhill crane through the increase in available roosting habitat, the maintenance of existing or enhanced foraging habitat as well as an increase in extent of habitat in protected status. These protected areas will be managed and monitored to support the species."</p> <p>Comment: The project actually destroys and disturbs good habitat and then promises to replace it later. Not clear there is a net or any benefit.</p> <p>Comment: Incorporation of monitoring concerns is still needed. What entity will be responsible for monitoring effectiveness and making changes as needed.</p> | No issues related to the adequacy of the environmental impact analysis in the EIR/EIS are raised in the comment. Please see response to comment 1562-127. |
| 1563 | 1 | Enclosed are the full comments prepared by the staff of the Contra Costa Water District. This letter provides a brief overview of the legal defects found in the BDCP Draft EIR/EIS, the BDCP itself, and the Draft Implementing Agreement for the BDCP. These defects are substantial and require that both the BDCP Draft EIR/EIS and the BDCP be revised and recirculated for public comment and agency response. | No specific issues are raised with the 2013 Draft EIR/EIS or the 2015 RDEIR/SDEIS. Please see below responses to comments. |
| 1563 | 2 | The BDCP proponents have elected to style the BDCP as a Habitat Conservation Plan under the federal Endangered Species Act and a Natural Community Conservation Plan under the California Natural Community Conservation Planning Act. But even a brief review of the BDCP Draft EIR/EIS reveals that the proposed project is not about conservation of habitat and natural communities. This project is about moving water from north of the Delta to south of the Delta "to meet the demands of certain south-of-Delta SWP and CVP water contractors." BDCP Draft EIR/EIS Executive Summary p. ES-10. The water conveyance component of the BDCP, labelled "Conservation Measure 1" (CM1), is designed for this water supply purpose, not for a conservation purpose. The BDCP acknowledges that CM1 provides only minor benefit to species. BDCP, Chap. 5 at p. 5.5.1-42. The effort to portray a massive, multi-billion dollar water conveyance project as a habitat conservation project is the source of many of the defects evident in the BDCP and accompanying BDCP Draft EIR/EIS. | 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. The Proposed Project was developed to improve Delta habitat and SWP/CVP water supply reliability. |
| 1563 | 3 | The BDCP Draft EIR/EIS is fatally undermined by an inadequate project description. The | |

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| | | <p>document does not disclose how the existing state and federal water supply facilities would operate before the new CM1 water conveyance is constructed, after the conveyance is constructed, or even at the 2060 date the authors have selected as their only impact assessment date. The BDCP project proponents themselves do not yet know how or when key project components would be constructed, where some of the water would come from, what operational parameters would be used, or even how most of the conservation measures would be funded.</p> <p>The resulting environmental analysis, while voluminous, contains enormous gaps. Because the project description is not yet known, it is impossible to tell the full extent to which the project would affect water quality and water supplies in the San Francisco Bay Delta -- the sole source of drinking water for the 500,000 people and major industries who rely on Contra Costa Water District as their retail or wholesale water service provider. To make matters worse, the BDCP Draft EIR/EIS masks the project's effects by combining impacts of the project with impacts of climate change and other potential future activities. And the BDCP Draft EIR/EIS focuses its analysis on the year 2060, leaving readers in the dark as to how the fragile Delta environment would function over the preceding 46 years.</p> <p>Having failed to adequately reveal impacts of the project, the BDCP Draft EIR/EIS impermissibly defers mitigation to future studies with no performance standards and no commitment to actual mitigation. Some potentially feasible environmental mitigation measures are not even labeled as mitigation, but rather are treated as "non-environmental" "other commitments" to which the BDCP proponents do not actually commit. And where significant impacts have been omitted, of course no mitigation is identified.</p> | <p>Please see Master Response 4 (range of alternatives), Master Response 5 (BDCP), and Master Response 8 (Analysis of Project as a Whole).</p> <p>All of the modeling and assumptions used for the hydrodynamic-based analyses in the surface water, water quality and fish and aquatic resources chapters present the best available information used to estimate impacts of the Proposed Project and alternatives. Effects on water quality from these alternatives show a range of water quality effects based on the operational assumptions described for each alternative in Chapter 3 of the EIR/EIS.</p> <p>Following publication of the 2013 Draft EIR/EIS, Alternatives 4A (Proposed Project) and Alternatives 2D and 5A have been analyzed in the RDEIR/SDEIS and presented in this Final EIR/EIS. These alternatives would be implemented under ESA Section 7 and do not include implementation of an HCP/NCCP but rather focus on construction and operations of conveyance facilities and implementing Environmental Commitments included in the description of each alternative to reduce the effects of the water conveyance facilities. These alternatives are fully described in Chapter 3, Description of Alternatives and fully evaluated in the EIR/EIS impact analyses. When adverse impacts under NEPA or significant impacts under CEQA are identified, mitigation measures are identified to reduce these impacts. It is anticipated that SWP and CVP operations would continue as under existing regulatory requirements (e.g., State Water Resources Control Board Decision 1641 and the 2008 and 2009 USFWS and NMFS biological opinions) until the Proposed Project conveyance facilities are constructed and have become operational.</p> <p>The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the Existing Conditions and No Action Alternative. In the comparison of conditions under the action alternatives and the Existing Conditions, the differences in conditions are related to changes that would occur with or without the Project due to climate change and population growth and due to implementation of the action alternative. The comparison of conditions under Existing Conditions and No Action Alternative indicate the effects of climate change and population growth that would occur with or without the Project. The comparison between the action alternatives and No Action Alternative indicates the changes that would occur due to the implementation of the alternative.</p> <p>Following the completion of the EIR/EIS phase of the proposed Project, the design phase would be initiated. During the initial stages of the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., locations of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be coordinated and submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate.</p> |
| 1563 | 4 | <p>The key aspects of the project that influence the environmental analysis must be described. Necessary elements include:</p> <p>How the BDCP proponents plan to operate their existing water supply facilities before and after CM1 operations begin; and</p> <p>What actions are contemplated, and what rules would apply, as part of the "adaptive management" of CM1.</p> | <p>It is anticipated that SWP and CVP operations would continue as under existing regulatory requirements (e.g., State Water Resources Control Board Decision 1641 and the 2008 and 2009 USFWS and NMFS biological opinions) until the Proposed Project conveyance facilities are constructed and have become operational. Operational scenario assumptions are described for each alternative in Chapter 3 and Appendix 5A of the EIR/EIS.</p> <p>Under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. For information on the adaptive management program, please see</p> |

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| | | | Chapter 3 and Master Response 33. |
| 1563 | 5 | What water storage, water transfer activities and/or other measures are necessary to achieve the key project objective to increase water supply reliability for south-of-Delta water contractors? | <p>All of the action alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Resources Control Board with consideration for senior water rights and Area of Origin laws and requirements.</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. For additional information regarding area of origin, please see Master Response 26.</p> <p>As described in Chapter 3, Description of Alternatives, 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 and in accordance with State and Federal laws and regulations, 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. Please see Master Response 43 related to Water Transfers and the Proposed Project.</p> |
| 1563 | 6 | Where, when and how -- or at least under what rules -- the BDCP's 80,000-plus acres of habitat restoration projects would be constructed, so that the resulting impacts on water quality and water supply can be analyzed and minimized? | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide conveyance facilities for the SWP and CVP Habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternative 4A.</p> <p>Please see Master Response 5 related to the status of the BDCP and Master Response 8 related to analysis of Alternative 4A.</p> |
| 1563 | 7 | Project impacts must be disaggregated from other effects, such as the effects of climate change and the effects of other future projects that might be completed. Moreover, near-term, mid-term, and long-term project effects must be revealed. That certain impacts might be offset at full project implementation in 2060 tells the reader nothing about water quality and water supplies in 2020 or any other year during the decades prior to 2060. | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered, which does not involve an HCP component, including floodplain restoration along the Sacramento and San Joaquin rivers systems. Instead, 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). Therefore, the analysis of the Proposed Project and Alternatives 2D and 5A in the Final EIR/EIS are analyzed for the near-term.</p> <p>Please see Master Response 5 related to the status of the BDCP. For additional information regarding alternatives, please see Master Response 4. Please see Master Response 1 regarding baseline. For additional information regarding water quality, please see Master Response 14.</p> |
| 1563 | 8 | The water quality, water supply and fisheries impact modeling for the impacts analysis must be corrected as recommended by the report on the independent analysis of the BDCP Draft EIR/EIS modeling performed by MBK Engineers for a consortium of water agencies, which concluded that the modeling of CM1 operations used for the BDCP Draft EIR/EIS analysis was fundamentally flawed and underestimated water quality impacts in | See responses to Comments 384 through 532 related to analysis completed by MBK. Please see Master Response 14 related to Water Quality. Please also see Master Response 30, regarding Modeling. |

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| | | the Delta. | |
| 1563 | 9 | The impact analysis must be expanded to include water quality impacts from increased disinfection byproducts that would result from the BDCP's changes in Delta water quality and from increased aquatic algae whose byproducts can both be toxic and cause noxious tastes and odors. | Assessment of disinfection byproducts is provided in Impact PH-2 of Chapter 25, Public Health. Assessment of effects to Microcystis and microcystin levels in the Delta and San Francisco Bay is included in the 2015 RDEIR/SDEIS and the Final EIR/EIS under Impacts WQ-32 and 33. For additional information regarding water quality, please see Master Response 14. |
| 1563 | 10 | <p>The analysis of water quality and water supply impacts must include all -- not half -- of Contra Costa Water District's Delta water intakes, and the 160-thousand-acre-foot Los Vaqueros Reservoir.</p> <p>Once impacts are revealed, effective mitigation measures must be identified. Where mitigation cannot be precisely defined, objective performance standards must be presented, along with a menu of feasible measures that would be capable of achieving those standards. The project proponents must commit to implementing all feasible mitigation to substantially reduce the project's adverse effects.</p> | <p>The CALSIM II model output includes diversions for Contra Costa Water District. Please see tables entitled "CALSIM II Summary Reporting Metrics, Long-Term Average and Dry and Critical Year Averages" in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, related to water deliveries to CVP water contractors in the San Francisco Bay Area Region (including Contra Costa Water District). As described in Chapter 5 of the EIR/EIS, the water supply impact analysis is based upon changes in water deliveries based upon SWP and CVP operations. The potential impacts and associated mitigations related to changes in water deliveries are presented in Appendix 5B, Response to Reduced South of Delta Water Supplies, and within applicable resource chapters, such as Chapter 14, Agricultural Resources.</p> <p>The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.</p> <p>Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.</p> |
| 1563 | 11 | Real alternatives, including an alternative similar to the Portfolio Alternative suggested by the Natural Resources Defense Council and other organizations, must be identified and analyzed. Alternatives must be designed to reduce project impacts, and not be burdened with outdated parameters and assumptions that cause impacts of the alternatives to appear worse than those of the proposed project. The Portfolio Alternative concept describes a feasible project, which may be more realistic than DWR's Preferred Alternative. | <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>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). Rather, the Portfolio-Based Proposal is akin to a "statewide water plan" that would treat California as a single water planning unit and include an approach to increase water use efficiency and water supplies throughout the entire State. The portfolio package includes additional water recycling, water storage located south of the Delta, and Delta levee modifications. With respect to water recycling, DWR has no control over local water recycling and conservation, even with respect to the water agencies and water districts in California that receive SWP water from DWR, many of which are water wholesalers, and do not deal with retail water customers. Additionally, many regional and local water agencies favor local water management, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> |
| 1563 | 12 | The CEQA lead agency must be the California Department of Fish and Wildlife (CDFW), and not one of the proponents of the alternative conveyance system. The entire analysis has been skewed by the fact that it was prepared by the chief advocate for the conveyance system -- and not the agency with responsibility to approve and ensure | Please note that the Proposed Project is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP or NCCP. Reclamation will act as the sole federal Lead Agency of the Proposed Project (under NEPA) and DWR will continue to act as the state Lead Agency (under CEQA). The federal regulatory agencies (USFWS, NMFS, USACE) are participating as cooperating agencies under NEPA to provide technical input and guidance in support of planning efforts to complete the Proposed Project; and CDFW and |

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| | | implementation of the entire Natural Community Conservation Plan. | <p>the State Water Resources Control Board are participating as Responsible Agency to provide technical input and guidance in support of planning efforts to complete the proposed project.</p> <p>DWR operates and maintains the SWP and would continue to do so as part of the implementation of the proposed project related to the SWP. DWR's actions in the process will be to certify the EIR, adopt findings of fact, decide whether to approve the project and its implementation, and carry out obligations under the proposed project. CDFW would consider whether to approve the project under CESA and issue permits under Section 2081 of the California Fish and Game Code.</p> |
| 1563 | 13 | Contra Costa Water District's facilities, operations and permits must be correctly described so that impacts to CCWD's ability to provide quality water are correctly analyzed. | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>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, please see Master Response 5.</p> <p>The RDEIR/SDEIS provided sensitivity analysis for Alternatives 2D, 4A, and 5A. The Final EIR/EIS includes model results specifically for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C. Alternatives 2D, 4A, and 5A only include a small area of wetlands restoration based upon mitigation requirements for construction of the conveyance facilities. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.</p> <p>Please see Master Response 14 regarding modeling and sensitivity analyses related to water quality assessments in the RDEIR/SDEIS and the Final EIR/EIS.</p> |
| 1563 | 14 | <p>The BDCP Draft EIR/EIS does not fulfill the most basic requirements of CEQA and NEPA to inform the decision-makers and the public about the environmental consequences of approving the BDCP, and to consider meaningful alternatives and mitigation measures to reduce the effects of the project. The document must undergo substantial revision and be recirculated for public review and agency response.</p> <p>Finally, the BDCP itself does not meet the requirements of the federal Endangered Species Act and California Natural Community Conservation Planning Act, and its implementation would violate numerous other statutes, policies and contracts that protect water quality and water rights. The BDCP proponents must fundamentally rethink the project to correct these legal defects.</p> | <p>Please note that the Proposed Project is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP or NCCP. The EIR/EIS has been prepared in compliance with the requirements of CEQA and NEPA. 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 5. For additional information regarding compliance with the Endangered Species Act, please see Master Response 29.</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 patterns and allow for greater operational flexibility.</p> |
| 1563 | 15 | <p>Project Description:</p> <p>The most basic flaw in the BDCP Draft EIR/EIS, from which most of the Draft's other defects flow, is its project description.</p> <p>Water Supply Facilities. Although the BDCP is first and foremost a water supply project, the BDCP Draft EIR/EIS does not adequately describe how water supply facilities would operate under the BDCP.</p> <p>First, the BDCP Draft EIR/EIS fails to describe how the BDCP proponents' existing water supply facilities would function during the first 11 years of BDCP operations, when CM1 would not yet be complete but numerous other BDCP elements – including habitat</p> | <p>The lead agencies have adequately described the proposed project. Note that: “[t]he description of the project ... should not supply extensive detail beyond that needed for evaluation and review of the environmental impact[.]” (State CEQA Guidelines, § 15124.) “A general description of a project element can be provided earlier in the process than a detailed engineering plan and is more amenable to modification to reflect environmental concerns.” (Dry Creek Citizens Coalition v. County of Tulare (1999) 70 Cal.App.4th 20, 28.) “The ‘general description’ requirement for the technical attributes of a project is consistent with the other CEQA mandates to make the EIR a user-friendly document.” (Ibid.) “The EIR must achieve a balance between technical accuracy and public understanding.” (Ibid.)</p> <p>Although the 2013 Draft EIR/EIS is not organized around a single “proposed project” and alternatives to that project, the 2013 Draft EIR/EIS did identify Alternative 4 as the CEQA Preferred Alternative. The description of Alternative 4 and the descriptions for the other action alternatives include far more than the minimum</p> |

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| | | <p>restoration projects and Delta "research studies" -- would be implemented. Although significant impacts to water quality, water supply and other environmental resources could result, the BDCP Draft EIR/EIS provides no information that would allow the public and the decision-makers to assess the environmental impacts of this 11-year experiment on the Delta.</p> <p>Second, once CM1 is constructed and north Delta diversions begin, the BDCP Draft EIR/EIS does not describe how existing State Water Project and Central Valley Project facilities outside the Delta -- particularly upstream reservoirs -- would be managed, or how DWR and Reclamation would share the capacity and yield of the new water supply facilities. The failure to answer these questions creates flaws in the BDCP Draft EIR/EIS's analyses of water supply, surface water, water quality, and fisheries impacts. These flaws are so severe that the U.S. Department of the Interior, Bureau of Reclamation has stated "the whole of its action" has not been analyzed in the BDCP Draft EIR/EIS, and impacts from changes in the operation of upstream reservoirs must be evaluated before it will accept or implement the BDCP Biological Opinion. (Reclamation, 2013a at p.1)</p> | <p>level of "general" information necessary to meet the standards for an adequate project description. The only mandatory components of a Project Description in an EIR are the following:</p> <p>(a) The precise location and boundaries of the proposed project shall be shown on a detailed map, preferably topographic. The location of the project shall also appear on a regional map.</p> <p>b) A statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.</p> <p>(c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities.</p> <p>(d) A statement briefly describing the intended uses of the EIR.</p> <p>(1) This statement shall include, to the extent that the information is known to the Lead Agency,</p> <p>(A) A list of the agencies that are expected to use the EIR in their decision making, and</p> <p>(B) A list of permits and other approvals required to implement the project.</p> <p>(C) A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements.</p> <p>The assumptions for operations of the SWP and CVP reservoirs under all of the action alternatives as compared to the Existing Conditions and the No Action Alternative are presented in Chapter 3 and Appendix 5A, Section B, of the EIR/EIS. Please see Master Response 5 related to status of the BDCP.</p> |
| 1563 | 16 | Although the BDCP states that CM1 operations would be subject to adaptive management, the project description does not identify either the pieces of the adaptive management toolkit or the range of acceptable outcomes. Without these, the range of potential impacts of CM1 cannot be adequately analyzed or mitigated. | <p>his comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered. Please see Master Response 5 related to status of the BDCP.</p> <p>As described in Chapter 3 of the EIR/EIS, under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives.. Please see Master Response 33.</p> |
| 1563 | 17 | The BDCP Draft EIR/EIS fails to identify the source of water needed to meet proposed operational criteria under Alternative 4, DWR's Preferred Alternative for the purposes of CEQA. The BDCP Draft EIR/EIS assumes that water for additional Delta outflow would come, in part, from a "water transfer," but does not identify the source of such a transfer and, therefore, makes no effort to analyze the environmental impacts of the transfer. It further assumes, in contradiction to existing laws and policies, that water for additional required Delta outflow could come from the State Water Project but not from the Central Valley Project. This unfounded assumption distorts the water supply, water quality, and fisheries analysis such that the impacts of operating the planned conveyance facilities cannot be properly assessed in the BDCP Draft EIR/EIS. | <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. The Proposed Project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation.</p> <p>Please see Master Response 3 regarding purpose and need. Please see Master Response 5 related to</p> |

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| | | | status of the BDCP. |
| 1563 | 18 | The BDCP project description has been segmented (or "piecemealed") to avoid addressing water storage, water transfers, or other activities essential to the accomplishment of project objectives. A fundamental objective of the BDCP is to "restore water supplies of the SWP and CVP south-of-Delta." BDCP Draft EIR/EIS p. ES-8. Conservation Measure 1, the water conveyance facility designed to achieve this objective, would cost the proponents of the BDCP at least \$16.3 billion. BDCP Executive Summary p. 26. Yet the BDCP Draft EIR/EIS's analysis shows that under the most likely operating scenario, Alternative 4 is anticipated to reduce State Water Project and Central Valley Project water exports. The only way the BDCP can ensure improvements in water supply reliability south of the Delta is to include other elements such as water storage and water transfers. Yet the BDCP Draft EIR/EIS steadfastly refuses to address these elements. "An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment whether the purpose can be achieved." County of Inyo v. City of Los Angeles, 124 Cal. App. 3d 1, 9 (1981). | The 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. It is important to note that the Proposed Project is not intended to serve as a statewide 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). Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information. |
| 1563 | 19 | Habitat Restoration Projects. The BDCP Draft EIR/EIS purports to analyze at a generalized "program" level all 21 of the BDCP's conservation measures other than CM1 -- many of which would cause their own environmental impacts, and some of which will precede completion of CM1. However, the BDCP Draft EIR/EIS fails to meet the legal requirements for a program analysis of these BDCP elements. To take the most striking example, the BDCP's non-CM1 conservation measures include more than 80,000 acres of habitat restoration. It is very well understood that habitat restoration projects within the waters of the Delta or upstream rivers and floodplains can affect the movement of water, the extent of salinity intrusion, and the quality of water in Delta channels. Nevertheless, the BDCP Draft EIR/EIS provides very limited information about the small number of habitat restoration projects that have been identified, and provides no information whatever about the range of impacts that could be caused by the 80% of habitat restoration projects that remain unidentified. If specific information is not available about these projects, then the BDCP must set rules for their location, sequence and design, and the BDCP Draft EIR/EIS must analyze the impacts of habitat restoration projects that operate within those rules. | Alternative 4 remains a viable alternative. However, a modified proposed project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include Conservation Measures 2 through 21. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP. |
| 1563 | 20 | Impacts Analysis: The BDCP Draft EIR/EIS analysis of the BDCP's environmental impacts is doomed by the project description defects, by improperly defined baselines and with-project scenarios (Section 2.1), by errors and gaps in methodology for the analysis of water quality impacts (Section 2.2) and water supply impacts (Section 2.3), and by failure to analyze all of the impacts of CM1's construction (Section 2.4). The comparison of project impacts to baseline conditions is flawed in four ways. First, the BDCP Draft EIR/EIS purports to use conditions as of February 2009, the date the Notice of Preparation for the EIR/EIS was issued, as its baseline date for CEQA analysis. This baseline is plainly outdated; important Delta water infrastructure projects and operations became part of the physical environment before the BDCP Draft EIR/EIS was issued and in some cases before the impact analysis was even started. In addition, the "February 2009" baseline conditions described in the BDCP Draft EIR/EIS do not even include all of the | Please refer to Master Response 1, which addresses the baseline approach for the EIR/EIS. The policies and programs included in the Existing Conditions and No Action Alternative analyses are described in Appendix 3D of the EIR/EIS. The EIR/EIS analysis is based upon a comparative analysis of conditions under the action alternatives as compared to conditions under the Existing Conditions and No Action Alternative. Alternative 4A and Alternatives 2D and 5A were analyzed at Early Long-term of around 2025/2030 to disclose the possible shorter term effects from conveyance facility operations. |

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| | | <p>regulatory programs and requirements that were in place as of that date, thus making "existing" conditions appear worse than they are and falsely minimizing the BDCP's impacts.</p> <p>Rather than comparing the BDCP alone to a February 2009 CEQA baseline, the BDCP Draft EIR/EIS conceals the BDCP's impacts by comparing presumed 2060 cumulative conditions -- including BDCP operations, operations of other possible future projects, the possible effects of global climate change, and other presumed changes in background conditions, all mixed together -- to the baseline. This plainly unlawful approach masks, rather than reveals, BDCP impacts and renders the BDCP Draft EIR/EIS's "CEQA" analyses useless.</p> <p>Perhaps recognizing this fatal flaw in the CEQA analysis, the BDCP Draft EIR/EIS also presents a NEPA-based comparison of future no-project conditions to future with-project conditions. Although this analysis at least attempts to compare apples to apples, its fatal flaw is that the only future-year comparison conducted is for the year 2060. This means not only that the first 46 years of BDCP impacts receive no environmental analysis whatsoever, but that the entire analysis depends on guesses about far-distant environmental conditions. The California Supreme Court warned of just this problem in <i>Neighbors for Smart Rail v. Exposition Metro Rail Line Construction Authority</i>, 57 Cal. 4th 439, 447 (2013). Compounding these errors, the 2060 no-project scenario improperly excludes the implementation of habitat restoration actions that are required under the current Biological Opinions that govern the coordinated operations of the Central Valley Project and the State Water Project.</p> | |
| 1563 | 21 | <p>The BDCP Draft EIR/EIS masks the impacts on water quality of CM1, on the one hand, and habitat restoration projects CM2 and CM4, on the other hand, by lumping them together for analysis. This makes it difficult to identify and evaluate mitigation measures to address the differing effects of the various conservation measures. Moreover, given that the project proponents have not committed to implement any conservation measure other than CM1, it is incorrect to assume implementation of those measures. The impact of each conservation measure must be revealed, in addition to the impacts of the combination of all of the measures.</p> | <p>The analysis for Conservation Measures 2-21 was completed at a programmatic level, as described in Chapter 4 of the EIR/EIS and meets NEPA and CEQA requirements. Alternative 4 remains a viable alternative.</p> <p>However, a modified proposed project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include Conservation Measures 2 through 21. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP.</p> |
| 1563 | 22 | <p>The BDCP Draft EIR/EIS's technical analysis of the BDCP's water quality impacts is also plagued by errors and gaps. The BDCP Draft EIR/EIS fails to analyze the potential increase in carcinogens that form during the treatment of raw water to produce drinking water. Increases in bromide, dissolved organic carbon and organic nitrogen near drinking water intakes would increase the formation of disinfection byproducts that cause cancer and other serious health effects. With respect to bromide, for example, the BDCP Draft EIR/EIS:</p> <ul style="list-style-type: none"> * Fails to analyze the magnitude of change in bromide concentrations, which is necessary to analyze human health impacts; * Asserts that large increases in bromide concentrations at two drinking water intakes are less than significant on the illogical basis that the intakes are "infrequently used"; and * Fails to analyze bromide concentration changes in conjunction with changes in organic carbon concentrations, so that potential changes to disinfection byproduct formation, | <p>The impact analysis in EIR/EIS Chapter 25, Public Health, addresses water quality parameters that are of public health and drinking water concern—including the disinfection byproduct precursors, DOC and bromide. That analysis relies on and summarizes results in Chapter 8, Water Quality as they pertain to those water quality parameters in the context of exceedance(s) of water quality criteria for constituents of concern in drinking water sources.</p> <p>The Draft EIR/S identified significant impacts to salinity-related parameters bromide, chloride, and electrical conductivity (EC) for Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, and 9, and introduced mitigation for those impacts.</p> <p>The Final EIR/EIS proposes Alternative 4A as the Proposed Project which does not include the large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Without the large-scale tidal restoration actions, the changes to bromide would be less than significant under Alternatives 4A, 2D, and 5A.</p> <p>Please see Master Response 5 related to status of the BDCP. With regards to water quality, please see</p> |

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| | | and impacts to all municipal users reliant on the Delta, are significantly understated. | Master Response 14. |
| 1563 | 23 | <p>The BDCP Draft EIR/EIS also fails to analyze the potential for the BDCP to impact water quality in the south Delta through increased concentrations of aquatic algae, whose byproducts can both be toxic to humans and animals and have noxious tastes and odors. Increases in these byproducts require increased physical removal and chemical treatment by water suppliers. The new south Delta marsh habitat and changes in water operations would create ideal conditions for cyanobacteria; nevertheless, the BDCP Draft EIR/EIS neglects these impacts and does not provide mitigation for them.</p> <p>The BDCP Draft EIR/EIS's failures of analysis on these water quality issues are all the more striking given that the Department of Water Resources, which purports to be the CEQA lead agency for the BDCP EIR/EIS, has repeatedly demanded that the EIRs for other parties' projects in the Delta analyze these very impacts.</p> | <p>Assessment of effects to Microcystis and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay was included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 in response to public comments on the 2013 Draft EIR/EIS. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased Microcystis blooms and, thus, microcystins in the waters. These increased residence times would be primarily associated with the proposed restoration areas. For Alternatives 4A, 2D, and 5A, the impact on Microcystis and microcystin would be less than significant. Please see Master Response 14 for additional information regarding the Microcystis assessment.</p> |
| 1563 | 24 | <p>The BDCP Draft EIR/EIS does not adequately analyze the temporary construction water quality impacts, and does not analyze at all the potential permanent water quality impacts, of the relocation of agricultural drains that would result from construction of conveyance facilities and habitat restoration, and which could occur at Contra Costa Water District's drinking water intakes. DWR is well aware that agricultural drainage locations can significantly affect drinking water quality; it has funded two projects to reconfigure drainages near CCWD's intakes for precisely this reason. The project proponents cannot now ignore the effects that another relocation of drainages might cause.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS.</p> <p>Regarding relocation of agricultural drainage infrastructure during construction of the Proposed Project and other action alternatives, the concept would be to reconnect drains disrupted by construction of intakes, pipelines, or canals to existing outfalls, as described in Chapter 14 and the associated Conceptual Engineering Reports. Drainage outfalls within the footprint of the intakes would be relocated within the vicinity of the intakes. Regarding construction water quality impacts, these Impacts are fully discussed within Chapter 8 for each alternative, with extensive discussion regarding potential sources of water quality impacts and measures to be implemented to protect water quality. Please see Master Response 14 related to Water Quality.</p> |
| 1563 | 25 | <p>A significant gap in the BDCP Draft EIR/EIS analysis is its failure to discuss how the proposed project and alternatives would operate in the event of levee failures due to an earthquake. One of the BDCP's stated project objectives is to minimize the potential for public health and safety impacts that would accompany seismically induced levee failures. The BDCP presumably would benefit the exporters by enabling them to pump fresh water from north of the Delta in the event of a levee failure that brings salt water into the Delta. But nowhere does the BDCP Draft EIR/EIS reveal that doing so would make conditions far worse for those who rely on the Delta for their drinking water. Studies presented outside of the BDCP Draft EIR/EIS reveal that if fresh water were exported during a levee failure rather than flowing down into the Delta, it would take much longer for fresh water to flush out the Delta. The BDCP Draft EIR/EIS must be revised to explain how the BDCP proponents intend to operate the proposed project, and each project alternative, in the event of predictable earthquake scenarios, so that the public can review and comment on the environmental impacts of those plans.</p> | <p>Please refer to Appendix 3E in the Final EIR/EIS for information on potential operations under a levee failure situation. For more information on levee stability and seismic risk please see Master Response 16. Additionally, please see Final EIR/EIS, Appendix 6A regarding BDCP/California WaterFix Coordination with Flood Management Requirements.</p> |
| 1563 | 26 | <p>The BDCP Draft EIR/EIS makes other fundamental errors in water quality analysis. The document fails to analyze impacts at two of Contra Costa Water District's four drinking water intakes. The BDCP Draft EIR/EIS compounds this error by improperly treating water quality as a long-term average, rather than a daily, issue. But CCWD's and other diverters' ability to take acceptable water from Delta intakes is decided on a daily basis;</p> | <p>Please refer to Master Response 14 regarding Delta locations and modeling data averaging periods used in the water quality assessment.</p> |

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| | | improvements during periods when water quality is high do not offset degradation of water quality during periods when the quality is low. | |
| 1563 | 27 | With respect to water supply, even though modeling performed for the BDCP Draft EIR/EIS showed that the BDCP would cause significant impacts to Contra Costa Water District's water supply, the BDCP Draft EIR/EIS does not reveal these results and does not disclose this significant impact. The proposed project would inhibit CCWD's ability to store high-quality water in Los Vaqueros Reservoir for blending with poor-quality source water, and for use in droughts and emergencies, but the BDCP Draft EIR/EIS never grapples with this issue. Further, the BDCP Draft EIR/EIS assumes operation of the proposed project would reduce Central Valley Project storage in Shasta Lake and San Luis Reservoir to levels that are unlikely to occur in practice, and the document fails to disclose how these shortfalls would be addressed and what the resulting impacts would be. The BDCP Draft EIR/EIS must be revised to take account of these water supply impacts. | Please see Master Response 14 related to water quality impacts. With regard to water quality impacts to CCWD, please see Chapter 8 of the RDEIR/SDEIS and Final EIR/EIS through inclusion of two Delta assessment locations at CCWD intakes. For alternatives under which there would be water quality impacts (e.g., chloride), those impacts are identified and mitigation is provided. Please also see Master Response 25 with regard to upstream reservoir effects. |
| 1563 | 28 | The BDCP Draft EIR/EIS does not identify or evaluate the impacts of construction activities on access to drinking water supply infrastructure, including infrastructure owned and operated by Contra Costa Water District. The impacts of constructing CM1 -- and, indeed, CM2 through CM22 -- must be fully analyzed in a revised BDCP Draft EIR/EIS. | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A is being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS, including habitat restoration areas near the CCWD intakes. During the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., location of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate.</p> <p>The impacts of construction of the proposed water conveyance facilities on surface water flows and water quality are described in Chapters 5, 6, and 8 of the EIR/EIS. Permit conditions issued by the USACE, SWRCB, and DWR would require that any construction within the waterways would be required to not increase erosion or sedimentation in accordance with Stormwater Pollution Prevention Permit and requirements of the USACE, Central Valley Regional Water Quality Control Board, and Central Valley Flood Protection Board, as described in Chapter 6, Surface Water. Additionally, DWR would consult with local agencies to ensure that construction activities would not conflict with infrastructure ongoing operations during construction of the conveyance facilities.</p> |
| 1563 | 29 | <p>Mitigation:</p> <p>Despite all of the errors that result in understatement of the BDCP's impacts, the BDCP Draft EIR/EIS identifies significant water quality impacts to Contra Costa Water District facilities from increases in chloride, electrical conductivity (EC) and dissolved organic carbon (DOC). The document fails, however, to identify mitigation for these significant impacts that complies with CEQA and NEPA requirements. Instead, the text of the BDCP Draft EIR/EIS defers identification of mitigation measures to the distant future without explaining why such deferral is necessary and without specifying performance standards, identifying a menu of potential measures that would reduce the impact, or describing how the BDCP proponents would select among the measures. The only measures identified in the BDCP Draft EIR/EIS that might, if expanded and supplemented, form the basis for legally adequate mitigation measures are, paradoxically, carefully labeled not as mitigation, but as "non-environmental" "other commitments" in an Appendix. Moreover, the BDCP proponents do not even commit to these "commitments," incorrectly claiming that they are not required to contribute to the solution of any BDCP-caused significant</p> | Please see Master Response 14 regarding water quality. With regard to water quality impacts to CCWD, please see Chapter 8 of the RDEIR/SDEIS and Final EIR/EIS through inclusion of two Delta assessment locations at CCWD intakes. This Final EIR/EIS presents feasible mitigation measures that have been determined by the lead agencies to adequately reduce the severity of impacts and that meet the requirements of CEQA and NEPA. |

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| | | <p>water quality problems that are also caused "substantially" by climate change.</p> <p>In addition, where the BDCP Draft EIR/EIS entirely fails to analyze a potential environmental impact or incorrectly labels a significant environmental impact as less than significant, the BDCP Draft EIR/EIS also improperly fails to identify legally adequate mitigation.</p> <p>Contra Costa Water District Comment 3 describes in detail all of these defects in the BDCP Draft EIR/EIS. As the comment also explains, legally adequate mitigation measures for all of these impacts must be identified and analyzed.</p> | |
| 1563 | 30 | <p>The BDCP proponents' focus on CM1 has unreasonably restricted the range of alternatives analyzed in the BDCP Draft EIR/EIS. Alternatives that would reduce the significant impacts of CM1, including the "Portfolio Alternative" or, indeed, any alternative that would substitute adjustments to existing water reservoir and system operations to improve water supply reliability in place of all or part of CM1 are not considered despite the high environmental cost of CM1. Moreover, although the BDCP Draft EIR/EIS acknowledges that CMs 2 through 22 are likely to cause significant environmental impacts, the BDCP proponents do not consider any meaningful changes to those BDCP components. Finally, the BDCP Draft EIR/EIS discussion of the alternatives the BDCP proponents are willing to consider is so unclear that neither the public nor the decision-makers will be able to discern, for example, whether a particular alternative would cause a particular impact due to its facility configuration or its operating scenario.</p> | <p>Alternative 4A no longer includes an HCP or Conservation Measures 2 through 22.</p> <p>Appendix 3A of the EIR/EIS thoroughly explains why various proposals were not analyzed in the EIR/EIS, including the NRDC Portfolio-Based Proposal. . . 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>Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information.</p> |
| 1563 | 31 | <p>Lead Agency:</p> <p>CEQA defines the "lead agency" as "the public agency which has the principal responsibility for carrying out or approving a project." Pub. Res. Code [Section] 21067. The overriding interest of the BDCP proponents in constructing the CM1 water conveyance facilities led them to select the Department of Water Resources (DWR) as lead agency; DWR has authority over the State Water Project, one of the primary beneficiaries of CM1. However, the BDCP purports to be a Natural Community Conservation Plan (NCCP) under California law; implementation of the NCCP is the proposed project for CEQA purposes. DWR has no responsibility for approving the NCCP; that responsibility belongs to the California Department of Fish and Wildlife (CDFW). As for carrying out the NCCP, DWR would have significant responsibility for carrying out CM1, but may carry out few of the BDCP's other 21 "conservation measures." For the reasons described in detail in Section 5 of Contra Costa Water District's comments, the BDCP proponents' selection of DWR rather than CDFW as the "CEQA lead agency" violates CEQA and has skewed the contents of the BDCP Draft EIR/EIS.</p> | <p>The EIR/EIS analyzes all action alternatives, including Alternatives 2D, 4A, and 5A that do not include all prior Conservation Measures.</p> <p>As described in the Final EIR/EIS, the lead and cooperating agencies will use the EIR/EIS as part of their decision-making process. Reclamation will act as the federal Lead Agency of the proposed project (under NEPA) while DWR will act as the state Lead Agency (under CEQA). The federal regulatory agencies (USFWS, NMFS, USACE) are participating as cooperating agencies under NEPA; and CDFW and the State Water Resources Control Board are participating as Responsible Agency.</p> <p>For more information please see Master Response 4.</p> |
| 1563 | 32 | <p>Characterization of Contra Costa Water District Facilities, Operations and Permits:</p> <p>The BDCP Draft EIR/EIS's internally inconsistent, outdated and largely erroneous descriptions of CCWD's existing operations and facilities presage the document's failures to analyze significant environmental impacts affecting those operations and facilities. The BDCP Draft EIR/EIS repeatedly ignores two of CCWD's four Delta water intakes, the Rock Slough Fish Screen, and the Los Vaqueros Reservoir Expansion Project and incorrectly describes CCWD as an exporter of water from the Delta. The result is an "existing conditions" baseline for BDCP analysis that misstates 2013 conditions in the Delta and</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance. Please see Master Response 1 related to baseline.</p> |

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| | | understates the BDCP's impacts. Section 6 of CCWD's comments explains these defects. | |
| 1563 | 33 | <p>Habitat Conservation Plan/NCCP Comments:</p> <p>In addition to the CEQA and NEPA shortcomings that make its BDCP Draft EIR/EIS unlawful, the BDCP itself does not comply with the letter or spirit of the Endangered Species Act (ESA) and the Natural Community Conservation Planning Act (NCCPA). First, although Contra Costa Water District is unique as the only major municipal water supplier that relies entirely on intakes it operates in the Delta, the planned governance for the BDCP gives CCWD no effective voice in BDCP implementation. Second, the Draft Implementing Agreement for the BDCP violates the NCCPA by providing assurances to the BDCP proponents that are not commensurate with the BDCP's underfunded and uncertain conservation assurances. Third, the Draft Implementing Agreement violates the NCCPA's requirement that the implementation of mitigation and conservation measures "is roughly proportional in time and extent to the impact on habitat." Finally, Chapter 8 of the BDCP relies on incomplete, unrealistic and speculative funding assumptions, failing to provide an adequate level of assurance that the BDCP would be funded adequately to meet NCCPA and ESA requirements.</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. |
| 1563 | 34 | <p>Consistency with Other Laws, Policies and Agreements:</p> <p>The BDCP must comply with the Delta Protection Act, the Sacramento-San Joaquin Delta Reform Act of 2009, anti-degradation policy, water rights, sections 404 and 401 of the Clean Water Act, and at least three existing contracts with Delta water purveyors. As proposed and analyzed in the BDCP Draft EIR/EIS, implementation of the BDCP would violate all of these statutes, policies and agreements. These are not simply significant impacts that the agencies can override under CEQA or impacts that can be accepted in a record of decision under NEP A; these are violations of substantive law that the BDCP proponents must address and eliminate.</p> | The EIR/EIS was prepared in a manner to comply with all applicable laws and regulations. Please see Master Response 29 related to ESA and CESA compliance. |
| 1563 | 35 | <p>The BDCP project description omits critical information about the proposed project to inform the basics of an environmental impact assessment. Numerous cases have repeated the fundamental principle under CEQA that a complete and accurate project description is indispensable to an adequate EIR. See S. Kostka & M. Zischke, Practice Under the California Environmental Quality Act (CEB 2014) at pp. 12-2 to 12-3. As the court explained in the leading case of County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 192-193 (1977):</p> <p>"Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR."</p> <p>Another court reiterated these long-standing principles in San Joaquin Raptor Rescue Center v. County of Merced, 149 Cal. App. 4th 645, 653 (2007), emphasizing that "[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." To provide an adequate level of detail, "[t]he entirety of the project must be described, and not some smaller portion of it." Id. at 654. A project description that is "curtailed,</p> | <p>The lead agencies have adequately described the proposed project. Note that: "[t]he description of the project ... should not supply extensive detail beyond that needed for evaluation and review of the environmental impact[.]" (State CEQA Guidelines, § 15124.) "A general description of a project element can be provided earlier in the process than a detailed engineering plan and is more amenable to modification to reflect environmental concerns." (Dry Creek Citizens Coalition v. County of Tulare (1999) 70 Cal.App.4th 20, 28.) "The 'general description' requirement for the technical attributes of a project is consistent with the other CEQA mandates to make the EIR a user-friendly document." (Ibid.) "The EIR must achieve a balance between technical accuracy and public understanding." (Ibid.)</p> <p>Although the 2013 Draft EIR/EIS is not organized around a single "proposed project" and alternatives to that project, the 2013 Draft EIR/EIS did identify Alternative 4 as the CEQA Preferred Alternative. The description of Alternative 4 and the descriptions for the other action alternatives include far more than the minimum level of "general" information necessary to meet the standards for an adequate project description. The only mandatory components of a Project Description in an EIR are the following:</p> <p>(a) The precise location and boundaries of the proposed project shall be shown on a detailed map, preferably topographic. The location of the project shall also appear on a regional map.</p> <p>b) A statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the</p> |

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| | | <p>enigmatic, or unstable," and that inadequately characterizes the action that is proposed for approval, impedes public participation and thwarts the EIR process. Id. at 655-56. As yet another court explained in <i>San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus</i>, 27 Cal. App. 4th 713, 730 (1994), "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity."</p> <p>The same principle applies under NEPA. See <i>Oregon Natural Desert Association v. Bureau of Land Management</i>, 625 F.3d 1092, 1109 (9th Cir. 2010) ("In order to decide what kind of environmental impact statement need be prepared, it is necessary first to describe accurately the 'federal action' being taken.")</p> <p>The project description in the BDCP Draft EIR/EIS fails to meet these fundamental standards. There are major sets of flaws with the project description. The description of water supply operations is deficient in a variety of important respects.</p> | <p>decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.</p> <p>(c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities.</p> <p>(d) A statement briefly describing the intended uses of the EIR.</p> <p>(1) This statement shall include, to the extent that the information is known to the Lead Agency,</p> <p>(A) A list of the agencies that are expected to use the EIR in their decision making, and</p> <p>(B) A list of permits and other approvals required to implement the project.</p> <p>(C) A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements.</p> <p>Please see Master Response 29 related to ESA and CESA compliance.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2d and 5A are being considered, and does not involve an HCP component.</p> |
| 1563 | 36 | The BDCP Draft EIR/EIS fails to describe how the existing water supply facilities of the Central Valley Project (CVP) and State Water Project (SWP) would be operated before the BDCP water conveyance facilities that make up Conservation Measure 1 (CM1) are constructed. This is a significant omission, as there are various components of the BDCP -- which could adversely affect water quality and water supply -- that would be put into operation before CM1 is built. This lack of information about near-term water supply operations makes it impossible to assess the project's impacts during the initial years of the BDCP's implementation. | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2d and 5A are being considered, and does not involve an HCP component. As described in the Final EIR/EIS for Alternative 4A, the proposed project, operations would be similar to the No Action Alternative conditions prior to completion of the proposed water conveyance facilities.</p> |
| 1563 | 37 | The BDCP Draft EIR/EIS fails to include an operations plan describing how the existing CVP and SWP water supply facilities would be managed in conjunction with the new water conveyance facilities of the BDCP. This prevents a full and accurate assessment of what the future impacts of the BDCP would be. | <p>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 EIR/EIS for all of the alternatives, including the Proposed Project, Alternative 4A.</p> <p>Please see Master Response 28 related to Project Operations.</p> |
| 1563 | 38 | The BDCP Draft EIR/EIS fails to describe how the CVP and the SWP would share the capacity of the new BDCP water conveyance facilities. This missing piece of the project description prevents a full and accurate assessment of the future impacts of the BDCP and means that potential reductions in deliveries to certain water contractors are not accounted for. | Please see Master Response 28 related to Project Operations and Master Response 5 related to status of BDCP. |
| 1563 | 39 | The BDCP Draft EIR/EIS does not adequately describe how project water supply operations would be adaptively managed. The BDCP indicates that the operations may be modified due to adaptive management for the protection of fish, but the parameters and | This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative. |

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| | | limits for these modifications are not defined. As a result, the range of impacts resulting from adaptive management changes, especially with respect to impacts on water quality within the Delta, is not disclosed or analyzed. | <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered. Please see Master Response 5 related to status of the BDCP. Please also see Master Response 28 related to Project Operations and Master Response 5 related to status of BDCP.</p> <p>As described in Chapter 3 of the EIR/EIS, under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. Please see Master Response 33.</p> |
| 1563 | 40 | The BDCP Draft EIR/EIS fails to define the water transfers that the document assumes would be necessary to satisfy the project objectives. The document therefore fails to analyze the environmental impacts resulting from the needed transfers. In addition, the assumptions for how Delta outflow requirements would be met under the BDCP are unrealistic and contrary to the Congressionally-approved Coordinated Operations Agreement that governs the CVP and SWP. | <p>The action alternatives evaluated in the EIR/EIS would divert water under existing water rights which were issued to DWR and Reclamation by the State Water Resources Control Board with consideration for senior water rights and Area of Origin laws and requirements.</p> <p>As described in Chapter 3, Description of Alternatives, 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 and in accordance with State and Federal laws and regulations, as described in Appendix 1E and Appendix 5D of the EIR/EIS. Please see Master Response 43 related to Water Transfers and the Proposed Project. Please see Master Response 26 regarding Area of Origin.</p> |
| 1563 | 41 | The BDCP Draft EIR/EIS improperly segments, or "piecemeals," the environmental analysis, by excluding from the environmental analysis water storage projects or other water projects that are necessary for the BDCP to meet its water supply objective. | <p>All of the action alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Resources Control Board with consideration for senior water rights and Area of Origin laws and requirements.</p> <p>The action alternatives do not include facilities to increase surface water or groundwater storage. Please see Master Response 37 regarding an alternative focused on creating additional storage, either in the Delta or elsewhere. Please also see Master Response 26 regarding Area of Origin.</p> <p>Please see Master Response 8 for more information regarding how the lead agencies analyzed the project as a whole.</p> |
| 1563 | 42 | <p>In addition to deficiencies in the description of the water supply operations, the habitat restoration components of the BDCP are not sufficiently defined to ascertain their potential impacts on water quality and water supply. By way of example, for Conservation Measure 4 (CM4), the BDCP Draft EIR/EIS assumes that 65,000 acres of tidal habitat would be restored by the year 2060, but the description and evaluation of this massive plan is so vague and generalized that the reader is unable to discern:</p> <p>* How the near-term habitat restoration actions under the BDCP could affect Delta water quality and water supplies in the initial years of project implementation before CM1 is constructed.</p> <p>* What the adverse impacts of the habitat restoration actions under the BDCP would be over the longer term, as distinguished from the adverse impacts resulting from the operation of CM1.</p> <p>* What the full range of impacts could be from the habitat restoration actions under the BDCP, depending on the location, sequence, and design of the actions.</p> <p>Without this important information, there is no way to know what mitigation measures should be adopted to guide the future site-specific habitat restoration actions that make up CM4.</p> | <p>The RDEIR/SDEIS, released in 2015, introduced a new Proposed Project, Alternative 4A, which does not include a HCP, large-scale habitat restoration, or Conservation Measures 2 through 21. The implementation strategy for Alternative 4A, as well as Alternatives 2D and 5A, allows for other state and federal programs to address the long term conservation efforts for species recovery in programs separate from the Proposed Project, as described in Chapter 3 of the EIR/EIS. Please refer to Chapter 8 and Chapter 5 in the EIR/EIS for more details related to impacts on water quality and water supply, respectively that would occur under implementation of Alternatives 4A, 2D, and 5A as compared to the Existing Conditions and No Action Alternative.</p> <p>Please see Master Response 14 regarding water quality. Please see Master Response 22 regarding Mitigation.</p> |

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| 1563 | 43 | In short, the project description in the BDCP Draft EIR/EIS fails to provide sufficient information to allow for a complete and accurate assessment of the BDCP's environmental impacts. This major flaw in the document frustrates the fundamental goal of the environmental review process, by preventing meaningful public input and informed governmental decision-making. In its current form, the project description simply cannot serve as a basis for a legally adequate EIR/EIS. | <p>Please note that the Proposed Project is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP or NCCP. The EIR/EIS has been prepared in compliance with the requirements of CEQA and NEPA. 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. For additional information regarding permitting, please see Master Response 45.</p> <p>The Proposed Project was developed to meet the standards of the federal and state Endangered Species Acts. 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> |
| 1563 | 44 | <p>The BDCP Draft EIR/EIS fails to adequately specify how existing water supply facilities would be operated and omits necessary project components from the project description.</p> <p>The operations of the CVP and the SWP are a major determinant of water quality in the Delta (CCWD, 2010). This is true under present conditions and would be no less true in the future with the implementation of the BDCP. However, the BDCP Draft EIR/EIS provides incomplete and inaccurate information about CVP and SWP operations under future project conditions. This approach prevents a meaningful assessment of the potential water supply, water quality, and other environmental impacts that could occur as a result of the project.</p> | Operational assumptions for the No Action Alternative and all action alternatives are presented in Chapter 3 and Appendix 5A, Section B, of the EIR/EIS. The CALSIM II and DSM2 models are operated to meet the regulatory water quality requirements within the limitations of the water rights issued to DWR and Reclamation for operation of the SWP and CVP, respectively. As indicated in Chapter 8 in the EIR/EIS there are months within the 82-years of analysis under the Existing Conditions, No Action Alternative, and action alternatives in which the water quality regulatory criteria are not met due to insufficient SWP and CVP water supplies due to climate change, sea level rise, and population growth that would occur with or without the Project. Please see Master Response 14 related to water quality and Master Response 30 regarding Modeling. |
| 1563 | 45 | <p>The BDCP Draft EIR/EIS does not reveal how the existing water supply facilities would be operated for the first decade of project construction and operation, prior to operation of Conservation Measure 1 (CM1).</p> <p>The BDCP Draft EIR/EIS does not provide any information regarding how the existing SWP and CVP water supply facilities, which are owned and operated by the project proponents, would be operated prior to the start of operation of the proposed new water supply facilities in Conservation Measure 1 (CM1). This is important because the operation of CM1 is not planned to start until 11 years after approval of the BDCP, whereas other project components that could trigger changes to operations of existing water supply facilities would be implemented much sooner than that. BDCP, Chap. 6, Tables 6-1 & 6-2. The BDCP Draft EIR/EIS explains that the project components are divided into near-term and long-term implementation stages: the near-term stage would last until the new water conveyance facilities are operational, while the long-term stage would consist of the remainder of the 50-year BDCP permit duration. BDCP Draft EIR/EIS, Chap. 3 at p. 3-20. But for the near-term stage, the BDCP Draft EIR/EIS simply states that coverage under the federal Endangered Species Act and California Endangered Species Act for the operation of the existing water supply facilities will be addressed "through separate compliance processes." BDCP Draft EIR/EIS, Chap. 3, at p. 3-17.</p> <p>This is an insufficient description of the initial years of water supply facility operations under the BDCP. The project components that would be implemented in the near-term stage would necessarily affect how the existing water supply facilities are operated. And, in turn, the effect on existing water supply operations caused by the near-term project components would result in environmental impacts -- impacts that are ignored in the BDCP Draft EIR/EIS.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration that would be initiated prior to operations of the proposed conveyance facilities. Operations of the SWP and CVP prior to construction and operations of the proposed conveyance facilities would be similar to operations under the No Action Alternative. All of the proposed conveyance facilities would be owned and operated by DWR; and DWR and Reclamation would continue to own and operate the existing facilities as under the Existing Conditions and No Action Alternative.</p> <p>Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling. Please see Master Response 29 regarding Endangered Species Act.</p> |

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| 1563 | 46 | <p>In particular, the near-term project components that include habitat restoration occurring within the waters of the Delta or upstream rivers and floodplains (primarily Conservation Measures 2, 4, 5, 6, 7, and 10) would affect the movement of water, extent of salinity intrusion, and spatial distribution of listed species. For instance, if habitat restoration implemented under the BDCP reduces salinity in the western Delta at a time when operations of existing facilities are being regulated to meet salinity requirements [Footnote 1: As discussed in Section 1.2.2, habitat restoration actions could increase or decrease Delta salinity depending on project-specific design details.], the project proponents are likely to reduce upstream reservoir releases to conserve storage or would increase diversions within the Delta to increase export of water to users south of the Delta. Such actions could lead to additional take of listed species and other environmental impacts, as compared to existing conditions and as compared to future conditions without the project. For example, if exports are increased, more delta smelt, salmon or other species could be entrained at the export pump plants. As another example, if water is held in storage, it would be released at some other time, and the effects of the release would depend upon its timing. Without information about how the existing facilities would be operated in combination with the proposed habitat restoration conservation measures prior to the operation of CM1, it is not possible to assess these potential impacts or to identify appropriate mitigation.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration that would be initiated prior to operations of the proposed conveyance facilities. The Proposed Project includes habitat restoration to mitigate significant environmental effects and satisfy applicable CWA, ESA and CESA standards. The Conservation Measures mentioned in this comment would no longer be applicable to the Proposed Project. Please refer to Chapter 3 for additional detail about the habitat restoration proposed under Alternative 4A.</p> <p>Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling. Please see Master Response 29 related to ESA/CESA compliance.</p> |
| 1563 | 47 | <p>The Preferred Alternative for purposes of CEQA (DWR Preferred Alternative) (Alternative 4) [Footnote 2: Although the studies are described as a component of the operations for Alternative 4, the BDCP Draft EIR/EIS states that they "could be implemented with any other project alternative in order to create a hybrid alternative." BDCP Draft EIR/EIS, Chap. 3 at p. 3-202.] includes as-yet undefined research studies for a "decision tree" to be completed in the near-term stage, prior to the initial operation of CM1. BDCP, Chap. 3, Table 3.4.1-5 at p. 3.4-32. These studies would be designed to inform operational criteria of CM1 for Delta outflow in the spring and fall. Although the studies "have not yet been determined" (id.), they could involve alteration of the operational criteria of the existing water supply facilities to test hypotheses regarding Delta outflow before CM1 is operational. Since changes in Delta outflow would impact salinity intrusion, these studies need to be defined in the BDCP Draft EIR/EIS, and their potential effects on existing water supply facilities and operations must be evaluated and disclosed.</p> <p>In sum, the BDCP Draft EIR/EIS must disclose how the existing water supply facilities that are owned and operated by the project proponents would be operated in the near term. To assess this issue, the BDCP Draft EIR/EIS must describe how the BDCP, including the decision tree studies and the Conservation Measures to be implemented in the initial ten years of the project, would change the operations of the existing water supply facilities and the Delta. Without this critical information, there is no way to conduct a meaningful assessment of the potential water supply, water quality, and other environmental impacts that could result from these near-term change in operation of the existing water supply facilities.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration that would be initiated prior to operations of the proposed conveyance facilities. Operations of the SWP and CVP prior to construction and operations of the proposed conveyance facilities would be similar to operations under the No Action Alternative.</p> <p>Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling Please see Master Response 29 related to ESA/CESA compliance.</p> |
| 1563 | 48 | <p>The BDCP Draft EIR/EIS does not reveal how existing water supply facilities would be managed in conjunction with the proposed new water supply facilities once Conservation Measure 1 (CM1) is operating.</p> <p>The SWP and CVP coordinate operation of their facilities, including operation of reservoirs</p> | <p>All of the action alternatives, including the new Proposed Project, Alternative 4A, would not change upstream reservoir operations criteria for SWP, CVP, or other water users as compared to the Existing Conditions and No Action Alternative, as described in Appendix 5A, Section B, of the EIR/EIS. It is discussed in Appendix 5A and in Chapter 5, that reservoir storage and release patterns do occur due to climate change, sea level rise, and population growth that would occur with or without the Project, as shown in the</p> |

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| | | <p>located upstream of the Delta and operation of the diversion facilities within the Delta that export water to the San Joaquin Valley and southern California. The system is connected by natural waterways such as the Sacramento River and man-made canals such as the Delta-Mendota Canal. Operations in one location can affect operations throughout the system. For example, the amount of water released from the upstream storage reservoirs is inextricably tied to the amount of water pumped out of the Delta at the export facilities.</p> <p>The BDCP Draft EIR/EIS states that the BDCP would modify operations in the Delta (BDCP Draft EIR/EIS, Chap. 3 at p. 3-31), but fails to describe the resulting changes to operations of water supply facilities outside the Delta, which in turn could result in significant environmental impacts. Delta operations are not independent of the rest of the SWP and CVP facilities. The BDCP Draft EIR/EIS acknowledges that Delta operations are influenced by Delta inflow (id. at p. 3-38), which depends on releases from upstream reservoirs; however, the BDCP Draft EIR/EIS does not describe how the addition of the proposed new water diversion facilities in the north Delta under the BDCP would alter management of existing upstream reservoirs.</p> <p>U.S. Department of Interior, Bureau of Reclamation (Reclamation) identified this as a key issue in its July 5, 2013 comments on the May 2013 Administrative Draft EIR/EIS, stating that because Reclamation's actions outside the Delta are not addressed, "the whole of Reclamation's action is not analyzed (i.e. Delta vs. whole CVP)" and the scope of the environmental analysis "may not be sufficient." (Reclamation, 2013a at p. 1). On July 16, 2013, Reclamation made a "clarification" to its comments, stating:</p> <p>"The current BDCP analysis assumes no operational impacts to upstream reservoir operations. Reclamation will continue to evaluate resulting upstream operational changes as necessary within the new operating regime under BDCP. If additional effects, outside of what has already been evaluated are identified, Reclamation will analyze those under a supplemental NEPA process prior to accepting and implementing the BDCP Biological Opinion. Reclamation does not believe this will affect the BDCP schedule."</p> <p>(Reclamation, 2013a at p. 1)</p> <p>This approach is legally incorrect. As Reclamation recognized in its initial July 5, 2013 comments on the BDCP Administrative Draft EIR/EIS, the scope of the analysis in the BDCP Draft EIR/EIS is not sufficiently inclusive, as it does not examine changes to water supply facility operations outside of the Delta. Reclamation cannot properly sidestep this defect by deferring the evaluation of upstream operations to some unspecified future date. Reclamation's acknowledgement that it would not accept and implement the BDCP Biological Opinion until these impacts have been analyzed constitutes an admission that the Draft EIR/EIS is deficient in its current form. No project approvals can be granted by any agency until the requisite has been conducted. And that analysis must be circulated for public review and comment.</p> <p>The failure to give adequate consideration to the changes to existing facilities that would necessarily occur due to implementation of the BDCP creates flaws in the analysis of water supply, water quality, and fisheries impacts. For instance, the BDCP Draft EIR/EIS acknowledges that operating existing upstream reservoirs differently ("reoperating" reservoirs) could create additional yield (BDCP, Chap. 3 at p. 3.4-356). Since there is a</p> | <p>comparison of Existing Conditions and No Action Alternative results in Appendix 5A, Section C, of the EIR/EIS.</p> <p>Changes in Delta water quality are presented in Chapter 8 of the EIR/EIS. Changes in aquatic resources conditions upstream of the Delta are presented in Chapter 11 of the EIR/EIS. Please see Master Response 25. Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling. Please see Master Response 27 regarding ESA/CESA compliance.</p> |

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| | | finite supply of water in the system, additional yield to the BDCP proponents would necessarily reduce available water to other users or to the ecosystem (including Delta outflow, which affects Delta salinity levels). However, the BDCP Draft EIR/EIS fails to disclose how the reservoirs would be reoperated; it therefore fails to analyze the impacts of this reoperation and how these impacts could be mitigated. As an example, if reoperation increases export levels, outflow at some time must be reduced, thereby increasing salinity levels in the Delta. The BDCP Draft EIR/EIS fails to disclose these potential impacts by failing to describe likely reoperation of reservoirs. The public is left in the dark. This is not a minor omission given the hundreds of thousands of people who rely on the Delta as their sole source of drinking water. | |
| 1563 | 49 | <p>Despite the lack of an operations plan, the consultants who performed the analysis for the BDCP Draft EIR/EIS were tasked with simulating how existing SWP and CVP facilities would operate in coordination with the BDCP. This ad-hoc modeling of system operation in the absence of an operations plan, which was used for the BDCP Draft EIR/EIS analysis, was provided by the California Department of Water Resources (DWR) to Contra Costa Water District in 2013 (DWR, 2013b), and the results of the modeling indicate that it is unrealistic to assume that there would be no operational changes to existing reservoir operations as a result of the BDCP.</p> <p>For example, San Luis Reservoir is an off-stream storage reservoir located south of the Delta and jointly operated by the SWP and CVP. As an off-stream reservoir, San Luis Reservoir receives little water from local precipitation and instead is primarily filled by pumping water from the existing SWP and CVP export facilities in the south Delta. The CVP and SWP coordinate operations to move water -- either water that was previously stored in reservoirs upstream of the Delta (such as Shasta Lake and Oroville Reservoir) or water that is in excess of the needs of the basin and that has never been stored -- through the Delta to fill San Luis Reservoir. Since 2001, Reclamation has been working on the San Luis Low Point Improvement Project, which evaluates solutions to decreased water delivery reliability that occurs when San Luis Reservoir storage drops to a "low point," below 300 thousand acre-feet, causing Reclamation's San Felipe Unit (which draws water from San Luis Reservoir) to experience supply interruptions.</p> <p>CM1 is intended to provide operational flexibility to "restore" water supply reliability to water contractors south of the Delta, including those that depend on San Luis Reservoir; however, the assumptions used in the BDCP Draft EIR/EIS environmental analysis show that the BDCP would actually exacerbate the low point problem. Historically, from 1969 through 2013, storage in San Luis Reservoir has dropped below 300 thousand acre-feet in approximately 10% of the years (DWR, 2014b). According to the modeling used as the basis for the BDCP Draft EIR/EIS (DWR, 2013b), storage in San Luis Reservoir would drop below 300 thousand acre-feet in 36% of the years under the No Action Alternative and would be exacerbated under the DWR Preferred Alternative as storage in San Luis Reservoir would drop below 300 thousand acre-feet in 44% to 86% of the years, depending on the outcome of the decision tree studies. For Alternative 4, Scenario H3 -- which is the branch of the decision tree with the same X2 requirements as the No Action Alternative -- storage in San Luis Reservoir would drop below 300 thousand acre-feet in 73% of the years; in other words, the occurrence of the low point problem would double with implementation of the BDCP. The additional occurrence of the low point condition creates a water supply impact that Reclamation is obligated to address by changing its</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration.</p> <p>The purpose of the EIR/EIS is to disclose changes in environmental resources, including changes in water deliveries and water quality, under the action alternatives as compared to the Existing Conditions and the No Action Alternative.</p> <p>Impacts to water quality in reservoirs in the CVP and SWP export service area are addressed via assessment of changes in water quality at the export pumping plants in Chapter 8 of the EIR/EIS. With the preferred alternative, Alternative 4A, water quality at the export pumping plants would be similar to existing conditions or improved relative to Existing Conditions and the No Action Alternative. Please see Master Response 25. Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling Please see Master Response 29 related to ESA/CESA compliance.</p> |

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| | | <p>water supply operations. The BDCP Draft EIR/EIS does not disclose this impact, nor does it disclose the measures that Reclamation would take to reduce the impact -- which in turn could have significant impacts to water quality and aquatic resources.</p> <p>The most likely way to address this issue is to re-operate the existing water supply facilities in coordination with the proposed new water supply facilities to avoid this water supply impact. This can be done; independent analysis and operations modeling performed by MBK Engineers for a consortium of water agencies demonstrated that adjusting the operations of the existing water supply facilities, within all existing and planned regulations and policies, would cause the implementation of BDCP Alternative 4, Scenario H3 [Footnote 3] actually to reduce the occurrence of the San Luis Reservoir low point problem by 1% of the time relative to the No Action Alternative (based on results from MBK Engineers and Steiner, 2014).</p> <p>Reoperation of the existing facilities to address the San Luis Reservoir low point problem is likely to increase total Delta exports, as more water would be exported to raise water levels in San Luis Reservoir. By not accounting for reoperation of the existing facilities, the BDCP Draft EIR/EIS understates the yield of the project, and thus similarly understates the negative water quality and aquatic resources impacts that could result from extracting this additional yield from the Delta.</p> <p>[Footnote 3: Although the BDCP indicates that Scenario H4 is most likely to be permitted (BDCP, Chap. 3 at p. 3.4-24), MBK Engineers and Steiner focused analysis on Scenario H3 because the source of water necessary to meet the additional spring outflow requirement in Scenario H4 is not sufficiently defined for analysis (MBK Engineers and Steiner, 2014 at p. 15). Furthermore, since Scenario H3 includes the same X2 requirements as the No Action Alternative, this comparison represents a direct analysis of the BDCP conservation measures without confounding the issue of modified X2 regulatory requirements that will be considered in the decision tree studies (MBK Engineers and Steiner, 2014 at p. 15).]</p> | |
| 1563 | 50 | <p>The BDCP Draft EIR/EIS does not reveal how the State Water Project and Central Valley Project would share the capacity of the new water supply facilities.</p> <p>The Bureau of Reclamation and DWR coordinate operation of the CVP and the SWP pursuant to the Coordinated Operations Agreement (Reclamation and DWR, 1986), signed in 1986 and implemented by Public Law 99-546 as enacted by Congress. The agreement defines the SWP and CVP facilities and their water supplies, sets forth procedures for coordination of operations, identifies formulas for sharing joint responsibility for meeting Delta water quality and flow standards, and identifies how unstored flow would be shared between the CVP and SWP. The agreement does not address the new facilities proposed by the BDCP. In reference to new facilities constructed after the agreement was executed, the agreement states that "[a]ny yield created by the construction of a new facility (not presently existing) by either party shall be attributed to the party constructing the new facility" (Reclamation and DWR, 1986, Article 16 at p. 25).</p> | <p>In the analysis of the Proposed Project and the action alternatives in the EIR/EIS, the capacity of the north Delta intake facilities is assumed to be shared equally between the SWP and CVP. The overall water deliveries to SWP and CVP water contractors is dependent upon the allocations of their water rights.</p> |
| 1563 | 51 | <p>For the purposes of the Implementation Costs and Funding Chapter, the BDCP assumes that the State would own the new facilities constructed as part of CM1 and that the costs of constructing and operating the new facilities would be "shared by the participating state and federal water contractors." BDCP, Chap. 8 at p. 8-70. However, there is no</p> | <p>Please note that the BDCP is no longer the preferred alternative. The Proposed Project is now Alternative 4A and no longer includes an HCP. Alternative 4A has replaced the BDCP.</p> <p>The deliveries anticipated by SWP and CVP water users throughout the systems are presented in Appendix</p> |

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| | | information in the BDCP or the accompanying Draft EIR/EIS about how the capacity of the proposed conveyance facilities would be shared between the SWP and CVP. Yet the modeling that was done in support of the BDCP Draft EIR/EIS must have incorporated assumptions on how the CVP and SWP would share capacity because the modeling results indicate that the Bureau of Reclamation would be exporting water through the proposed, State-owned conveyance facility. | 5A, Section C by geographical region and type of water contract. Please see Master Response 25. Please see Master Response 14 regarding water quality. Please see Master Response 30 regarding modeling. Please see Master Response 29 regarding ESA/CESA compliance. |
| 1563 | 52 | <p>The assumptions regarding timing and priority of CVP and SWP use of the proposed conveyance facilities necessarily affect the quantity and timing of water released from upstream reservoirs and affect the quantity and timing of pumping at the CVP and SWP south Delta export facilities. If the project ultimately is approved with a different sharing arrangement than what was assumed for the analysis, the environmental impacts could be greater than what is analyzed in the BDCP Draft EIR/EIS. For example, if the CVP has greater use of the proposed conveyance facility in the spring than the use that was assumed in the analysis, more springtime water could be released from Shasta Lake for export at the proposed facility, which would impact the amount of water in Shasta Lake available for fishery benefits during the summer (e.g. cold-water releases for temperature management in the Sacramento River). In this same example, if CVP south Delta exports were reduced instead of increasing releases from Shasta Lake, water quality impacts due to stagnation in the south Delta are likely to be greater than analyzed in the BDCP Draft EIR/EIS. Conversely, if the CVP share of the proposed conveyance facility is less than what was assumed in the analysis, deliveries to CVP export contractors may decrease [Footnote 4] compared to existing or without project conditions. Under the CVP shortage policy, cuts to deliveries to the export contractors can trigger cuts to deliveries to in-Delta and north of Delta contractors. Such cuts would constitute undisclosed effects of the project and would be improper.</p> <p>[Footnote 4: The proposed BDCP includes increased restrictions on the use of the existing south Delta export facilities. Thus, if Reclamation's use of the proposed north Delta conveyance facilities is constrained, total CVP exports would be reduced. At the most extreme case, if the proposed north Delta export facilities cannot be used at all, the additional restrictions on the use of the existing south Delta export facilities proposed by the BDCP would reduce total exports by approximately 1,200 thousand acre-feet per year on average compared to the existing conditions. BDCP, Chap. 9, p. 9-45.]</p> | Please see Master Response 25. Please see Master Response 14 related to water quality. Please see Master Response 30 regarding Modeling. Please see Master Response 29 related to ESA/CESA compliance. |
| 1563 | 53 | <p>The BDCP Draft EIR/EIS does not reveal the parameters and limits of the Adaptive Management Program proposed as part of the BDCP.</p> <p>Adaptive management is an important tool for a successful conservation plan. But the BDCP Draft EIR/EIS fails to define the pieces of the adaptive management toolkit and thus fails to analyze and disclose the full range of potential impacts of the BDCP.</p> <p>In an April 2013 BDCP progress assessment memo, the U.S. Fish and Wildlife Service (USFWS) discusses the lack of a defined adaptive management range (USFWS, 2013a at p. 30):</p> <p>""Adaptive limits" in the BDCP refers to the most extreme sets of practicable operational parameters that might be required of or authorized to the permittee through the working of adaptive management over the life of the permit. Some discussion of what such parameter-by-parameter limits might be has already occurred, but the [sic] neither the</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration.</p> <p>As described in Chapter 3 of the EIR/EIS, under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. Please see Master Response 33.</p> |

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| | | <p>concept of adaptive limits nor a draft example of them is included in the current BDCP draft. Without adaptive limits, limits to the commitment of resources that might be required of the permittee(s) remain undefined.</p> <p>"As is clear in both the HCP Handbook and the Five Point Policy, the permittee(s) in an HCP is protected by the inclusion of adaptive limits that "clearly state the range of possible operating conservation program adjustments due to significant new information, risk or uncertainty. This range defines the limits of what recourse [sic] commitments may be required of the permittee(s). This process will enable the applicant to assess the potential economic impacts of adjustments before agreeing to the HCP." 65 Fed. Reg. 35253; see also HCP Planning Handbook at 3-24 - 3-25.</p> <p>"In the BDCP, adaptive limits would provide an important assurance that would protect the permittee(s) from an open-ended obligation to commit resources irrespective of circumstances. They would also provide an important level of transparency to the permittee(s) and the public regarding the commitments represented in the plan."</p> <p>Upon review of the May 10, 2013 BDCP Administrative Draft EIR/EIS, U.S. Fish and Wildlife Service restated this concern (USFWS, 2013b at pp. 4-5): "The ADEIS does not address issues raised in Issue Area 6 of our April 2013 progress assessment of the BDCP. In particular, it does not resolve the role of adaptive limits, or limits on the adjustment of water operations and habitat restoration Conservation Measures, that would be permissible through the action of adaptive management over the term of the permit. The alternatives considered in the ADEIS cover a wide range of Delta flows and other parameters, but absent explicit adaptive limits it is unclear what portion of those ranges would be the responsibility of the permit-holder(s), and unclear how the potential implications of those ranges for achievement of plan biological objectives over the term of the permit should be evaluated."</p> <p>Unfortunately, these critical comments concerning the February 2013 and May 2013 administrative drafts of the BDCP EIR/EIS do not appear to have been addressed in the December 2013 draft released for public review. While the BDCP acknowledges that the criteria proposed in CM1 for operation of the water facilities would be comprehensively reevaluated every 5 years (BDCP, Chap. 3 at p. 3.4-34), the BDCP does not reveal what criteria could be adaptively managed (e.g. Delta outflow, channel flow, gate operations, etc.) or the limits that would be associated with each parameter.</p> <p>Rather, the BDCP simply acknowledges that the operating criteria may be adjusted to minimize impacts on covered fish species and specifies that any adjustments would be offset to ensure no impact to average annual water supply. BDCP, Chap. 3 at p. 3.4-34. But as the adaptive limits are not defined, the full range (or even approximate range) of potential impacts are not disclosed, analyzed or mitigated. This is especially true for impacts to Delta water quality, since the adaptive management decision making process is not structured even to consider, let alone analyze, balance, and mitigate, such impacts.</p> | |
| 1563 | 54 | <p>There are likely to be impacts to Delta water quality. The criteria by which the SWP and CVP operate the water facilities have a profound effect on water quality within the Delta, and modifications to the criteria would affect Delta water quality. [Footnote 5: The quality of water diverted at the proposed north Delta intakes would generally not be affected by such an adjustment; thus the BDCP proponents may not be affected, but</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Elimination of the large-scale habitat</p> |

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| | | <p>other Delta users would be impacted.] For instance, past increases in Delta outflow requirements from February through June as specified in the 1995 Bay-Delta water quality control plan reduced Delta salinity during these months, but had the unintended consequence of increasing Delta salinity later in the year when Delta outflow requirements were less stringent because the CVP and SWP changed their project operations to increase exports in other parts of the year (generally fall and early winter). Thus, while the increase in Delta outflow from February through June was intended to protect the Delta ecosystem, the implementation of this measure had adverse impacts on Delta water users by increasing salinity in the fall. In hindsight, the increase in salinity during the fall has been identified as a possible factor in the decline of the Delta ecosystem. Baxter et al. (2008) noted that "fall salinity has been relatively high during the [Pelagic Organism Decline] POD years, with X2 positioned further [sic] upstream, despite moderate to high outflow conditions during the previous winter and spring of most years" (Baxter et al., 2008 at p. 12).</p> <p>The BDCP Draft EIR/EIS must specify which parameters would be adaptively managed and place limits on the parameters in order to evaluate the full range of potential impacts. At a minimum, the BDCP should specify limits on key operational criteria to prevent degradation of Delta water quality, including a commitment not to seek relaxation of existing Delta water quality objectives.</p> | <p>restoration assumptions considered in the 2013 Draft EIR/EIS action alternatives reduced adverse water quality effects as compared to the Existing Conditions and No Action Alternative. Please refer to Master Response 14 for Water Quality related impacts and analysis and Master Response 30 regarding Modeling. For additional information regarding proposed operations, please see Chapter 3 and Appendix 5A of the Final EIR/EIS.</p> <p>As described in Chapter 3 of the EIR/EIS, under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. Please see Master Response 33 and Master Response 14 related to Water Quality.</p> |
| 1563 | 55 | <p>The BDCP Draft EIR/EIS does not reveal the source of water needed to meet proposed operational criteria in the DWR Preferred Alternative.</p> <p>The operational scenario for Alternative 4, the DWR Preferred Alternative, includes 4 variations; the particular scenario to be implemented depends upon the outcome of the decision tree. This same operational scenario could be applied to any of the alternatives. BDCP Draft EIR/EIS, Chap. 3 at p. 3-202. Two of the four variations, operational scenarios H2 and H4, include a criterion for additional Delta outflow in March, April, and May. However, the impacts associated with conveying and using this source of water for the additional Delta outflow are not analyzed in the BDCP Draft EIR/EIS, and thus the impacts analysis is incomplete and incorrect.</p> | <p>As described in Chapter 5 and Appendix 5A of the EIR/EIS, the source of water for the diversions at the north and south Delta intakes are the water rights issued to DWR and Reclamation for the operations of the SWP and CVP. 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 issued to DWR and Reclamation. Please see Master Response 4 related to Alternatives Analysis and Master Response 44 related to the decision tree.</p> |
| 1563 | 56 | <p>The BDCP (Chap. 3 at p. 3.4-19) indicates that the additional outflow would be met with an approved water transfer, reductions in Delta exports, and releases from Lake Oroville, which is a SWP reservoir located upstream of the Delta, with subsequent appropriate accounting adjustments between the SWP and the CVP. However, the analysis performed for the BDCP Draft EIR/EIS did not include a water transfer or any accounting adjustments between the SWP and CVP. Instead, only reductions in Delta exports and releases from SWP's Lake Oroville are modeled to meet the additional outflow requirement. BDCP, Chap. 3, Table 3.4.1-1 at pp. 3-18 to 3-20. This raises two problems: first, the "approved water transfer" was not included in the analysis and its source and impacts are unknown; and second, the "accounting adjustments" were not included in the analysis and thus the CVP and SWP water supply analysis is incorrect, which, in turn, introduces errors in the impacts analysis for water quality and aquatic resources.</p> <p>By analyzing only a portion of the water supply operations proposed under the BDCP, the analysis underestimates the total amount of water that would be exported from the Delta under the BDCP. According to the BDCP Draft EIR/EIS, implementation of DWR's Preferred</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) based on the analysis of Alternative 4 H4 contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include release of water from Lake Oroville to meet Delta outflow objectives, as under Alternative 4H4 in the 2013 Draft EIR/EIS.</p> <p>As described in Chapter 5 and Appendix 5A of the EIR/EIS, the source of water for the diversions at the north and south Delta intakes are the water rights issued to DWR and Reclamation for the operations of the SWP and CVP. 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 issued to DWR and Reclamation. Please see Master Response 4 related to Alternatives Analysis and Master Response 25 related to upstream reservoir operations.</p> |

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| | | <p>Alternative would reduce the south of Delta water deliveries for municipal and industrial (M&I) water users of the SWP by 7% on average as compared to the level that these water users would receive without the project as predicted in the No Action Alternative. BDCP Draft EIR/EIS, Appendix 5A-C, Table C-13-20-2. During dry and critically dry years, south of Delta water deliveries for M&I and agricultural water users of the SWP would drop 17% below the level that they would receive without the project. Id. In other words, according to the BDCP Draft EIR/EIS, SWP contractors would spend billions of dollars (BDCP, Table 8-37) to get less water than these water users would get without the BDCP (BDCP Draft EIR/EIS, Appendix 5A-C, Table C-13-20-2). As analyzed, the DWR Preferred Alternative fails to meet one of the primary project objectives: "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." BDCP Draft EIR/EIS, Chap. 2 at pp.</p> <p>2-3.</p> <p>The undefined and unanalyzed water transfers could prevent these reductions to Delta exports. The BDCP project description indicates that the additional outflow could be met with transfers. If a transfer is approved, the transfer water would be used to meet the additional Delta outflow requirement in lieu of the reduction to Delta exports. Thus, the transfer water allows additional exports beyond the quantity shown and analyzed in the BDCP Draft EIR/EIS for the action alternatives. The undefined and unanalyzed water transfers are critical to the project's viability. Since the BDCP Draft EIR/EIS concedes that a water transfer is needed to meet the project objective, the transfer is an integral and essential project component, and the BDCP Draft EIR/EIS must disclose the details of the transfer and how it would affect the operation of the existing and proposed facilities, so that the resultant environmental impacts can be meaningfully assessed and feasible, effective mitigation measures can be identified.</p> <p>If the specifics of the water transfers are not known, the transfers should be assessed on a programmatic level to disclose their potential impacts, using reasoned assumptions about the timing, quantity and approximate location of the sources of the transferred water. Without an analysis of water transfers, the project description and environmental analysis in the BDCP Draft EIR/EIS are incomplete.</p> | |
| 1563 | 57 | <p>The second flaw regarding the BDCP Draft EIR/EIS analysis of the additional spring outflow requirements in the DWR Preferred Alternative is the omission of the subsequent appropriate accounting adjustments between the SWP and the CVP. The obligation for providing flow to satisfy Delta outflow requirements is shared between the SWP and CVP as described in the Coordinated Operations Agreement (Reclamation [US Bureau of Reclamation] and DWR, 1986). However, the BDCP modeling analysis assumes that the SWP's Lake Oroville would be used to meet additional Delta outflow requirements in the spring, and no CVP reservoirs would assist in meeting the flow obligation. BDCP, Chap. 3, Table 3.4.1-1, p. 3.4-19. This assumption results in a model showing CVP water supplies increasing an average of 75 thousand acre-feet while SWP water supplies decrease almost 100 thousand acre-feet on average. BDCP Draft EIR/EIS, Appendix 5A-C, Table C-13-20-2. These results contradict the sharing of responsibilities specified in the Coordinated Operations Agreement, which Congress directed the federal government to execute and</p> | <p>Please see Master Response 30 related to Modeling.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) based on the analysis of Alternative 4 H4 contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include release of water from Lake Oroville to meet Delta outflow objectives, as under Alternative 4H4 in the 2013 Draft EIR/EIS.</p> |

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| | | <p>implement through passage of Public Law 99-546.</p> <p>There are at least two ways that the established sharing arrangements under the Coordinated Operations Agreement could be satisfied. First CVP's upstream reservoirs could release water in an amount on par with the releases from the SWP's Lake Oroville, to meet the additional Delta outflow requirements; however, the environmental impacts of such releases would need to be evaluated. For example, releasing water from Lake Shasta to meet Delta outflow requirements in the spring means that less cold water would be available in the summer to control temperature on the Sacramento River, which would adversely affect the winter-run salmon population. Second, the sharing arrangements could be met by reclassifying water that was exported from the Delta originally as CVP water to SWP water as is implied by the statement that "subsequent appropriate accounting adjustments between the SWP and the CVP" would be made following any releases from Lake Oroville. However, such adjustments would reduce water supplies to CVP south of the Delta water contractors and thus reduce the likelihood of meeting the project objectives for CVP water supply.</p> <p>Finally, although not analyzed in the BDCP Draft EIR/EIS, it is worth noting that the additional Delta outflow could also be met by increased storage; in fact, this is one purpose of the North-of-Delta Offstream Storage (NODOS) Project, discussed in Section 1.1.6 below.</p> <p>In failing to disclose the source of water and the method by which the BDCP would be operated to meet the additional Delta outflow requirements while abiding by the requirements of the Coordinated Operations Agreement, the BDCP Draft EIR/EIS omits an important element of the project description, and thus fails to analyze potentially significant impacts.</p> | |
| 1563 | 58 | <p>The BDCP Draft EIR/EIS does not reveal the effects of water projects upon which Conservation Measure 1 (CM1) would rely.</p> <p>One of the BDCP's basic project objectives under CEQA, and a key element of its purpose and need under NEPA, is increased water supply reliability south of the Delta. But the DWR Preferred Alternative (Alternative 4), as described in the BDCP Draft EIR/EIS, does not meet this objective. Only if CM1 is operated in conjunction with additional water supply changes and projects such as reoperation of the upstream reservoirs, transfers, new groundwater storage, and/or new surface water storage would the water agencies who are project proponents receive a more reliable water supply. A proposed project that depends upon activities that are not included in the EIR's analysis runs afoul of CEQA's and NEPA's prohibitions on piecemeal environmental review.</p> <p>The BDCP Draft EIR/EIS states that part of the BDCP's "fundamental purpose" is to "restore ... water supplies of the SWP and CVP south-of-Delta." BDCP Draft EIR/EIS at p. ES-8. The BDCP Draft EIR/EIS further states that the following CEQA project objective has guided the development of the proposed project and alternatives: "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. at p. ES-9 (emphasis added). On the federal side, the BDCP Draft EIR/EIS states that "project need" includes "water supply reliability" and specifies: "The</p> | <p>As described in Chapter 5 and Appendix 5A of the EIR/EIS, the source of water for the diversions at the north and south Delta intakes are the water rights issued to DWR and Reclamation for the operations of the SWP and CVP. 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 issued to DWR and Reclamation. Please see Master Response 4 related to Alternatives Analysis and Master Response 5 related to status of BDCP.</p> <p>The concept of providing increased predictability is part of the Project Objectives and Purpose and Need for the action alternatives. As indicated in Chapter 35, Glossary, of the 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." .</p> <p>The overall approach of the Proposed Project is to decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high to improve conditions for aquatic resources in the Delta. The water would be stored at locations south of the Delta during the high flow periods to allow reductions in deliveries to SWP and CVP water users in drier periods.</p> |

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| | | <p>current and projected inability of the SWP and CVP to deliver water to meet the demands of certain south-of-Delta SWP and CVP water contractors -- in all water year types and considering ecosystem and species requirements -- is a very real concern. More specifically, there is an overall declining ability to meet defined water supply delivery volumes and water quality criteria to support water users' needs for human consumption, manufacturing uses, recreation, and crop irrigation." Id. at pp. ES-10, ES-11.</p> <p>To meet these fundamental project objectives and the BDCP's purpose and need, the state and federal water contractors state that they plan to fund "Conservation Measure 1," the "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." BDCP Draft EIR/EIS at p. ES-19; BDCP, Executive Summary at p. 26. The cost to the water contractors of CM1 alone is currently estimated at \$16.3 billion. BDCP, Executive Summary at p. 26.</p> <p>Since the project purpose and need refers to "current" inability to deliver water and the objective is to "restore" water supplies, presumably the BDCP could meet its purpose only by increasing water supply reliability compared to existing conditions. The analyses in the BDCP Draft EIR/EIS of future project conditions compared to existing conditions are fatally flawed. But if the CEQA analysis in the BDCP Draft EIR/EIS is taken at face value, the proposed project is likely to decrease average water supply to south of Delta export contractors in all years compared to existing conditions, and is certain to decrease average supplies in dry years, when additional supply is most needed.</p> | <p>The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians (see Appendix 1C, FEIR/EIS for information on demand management measures to reduce reliance on imported water). As described in Section 1.1 of Chapter 1, Introduction, of the EIR/EIS, the proposed project was developed to improve water supply reliability by the project proponents. 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, as described in Chapter 5, Water Supply. No changes would occur to other water rights holders (see Section 5.3.1 of Chapter 5 of the EIR/EIS).</p> |
| 1563 | 59 | <p>Alternative 4, the DWR Preferred Alternative, includes four potential regulatory options, operational scenarios H1 through H4. Which scenario to implement would be chosen through a decision tree process. Compared to the existing conditions, the BDCP Draft EIR/EIS states that Alternative 4 would increase total Delta exports by up to 112 thousand acre-feet per year (TAF/year) (or 2%) on average for one of the four possible outcomes of the decision tree process; all other outcomes decrease total Delta exports. BDCP Draft EIR/EIS, Chap. 5, Figure 5-17. The largest decrease -- 730 thousand acre-feet (TAF) per year (or 14%) on average -- would occur under Scenario H4, which is considered the most likely to be permitted. BDCP, Chap. 3 at p. 3.4-24. In dry and critical years, when water supply is the most constrained, Alternative 4 would reduce total Delta exports under all operational scenarios, reducing exports by between 799 TAF/year and 1,169 TAF/year on average (or 19% to 28%) below the existing conditions, depending on the outcome of the decision tree. BDCP Draft EIR/EIS, Chap. 5, Figure 5-19.</p> <p>The NEPA comparison of 2060 No Action conditions to 2060 conditions with the proposed project yields similar results. In 2060, the average exports under the proposed project Scenario H4 would be less than under the No Action Alternative. BDCP Draft EIR/EIS, Chap. 5, Table 5-8 states that, compared to the No Action Alternative, Alternative 4, Scenario H4, would reduce total Delta exports by 27 TAF/year on average, or 1%. In dry and critical years, when water supply is the most constrained, Alternative 4, Scenario H4 would reduce total Delta exports by 277 TAF/year on average, or 8%, relative to the No Action Alternative. BDCP Draft EIR/EIS, Chap. 5, Figure 5-19. In these dry and critical years, only Scenario H1 would actually increase total Delta exports -- by 93 TAF/year on average or less than 3%.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) which included the Decision Tree contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered. Operations under the Proposed Project would include operations that are between Alternative 4 H3 (which includes Fall X2 Delta outflow) and Alternative 4 H4 (which includes Fall X2 and enhanced spring outflow) to include additional spring outflow to reduce negative affects to longfin smelt as a result of the Proposed Project. In addition, USFWS (2008) biological opinion Fall X2 requirements will be included in the operations for Alternative 4A. As described in Appendix 5A, Section C, total exports under 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.</p> <p>Please see Master Response 4 related to Alternatives Analysis and Master Response 44 related to the decision tree.</p> |

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| 1563 | 60 | <p>The premise of the BDCP project description, and the BDCP Draft EIR/EIS, is that south of Delta water contractors will spend \$16.3 billion on Conservation Measure 1 in order to obtain the likelihood, on average, of a 14% decrease in water deliveries compared to existing conditions or a 1% decrease in water deliveries compared to the No Action Alternative. Results in dry and critical years would be much worse. This proposition defies common sense unless it is assumed that other water projects that make the BDCP viable would be built. This means that the BDCP is dependent upon projects that are not analyzed, and the BDCP Draft EIR/EIS is therefore piecemealing its environmental analysis.</p> <p>Water projects that could increase south of Delta water supply reliability and make the BDCP viable include some combination of reoperation of the upstream Central Valley Project and State Water Project reservoirs, additional water transfers, new groundwater storage, and new surface water storage. Reoperation of the upstream reservoirs alone could provide substantial additional supply reliability but such an action also is likely to have significant impacts.</p> | <p>The Proposed Project proposes to stabilize water supplies</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4. For information on water storage, see Master Response 37.</p> |
| 1563 | 61 | <p>The BDCP proponents have long been aware that additional storage would substantially improve the water supply yield shown in Table 5-9 of the BDCP Draft EIR/EIS. In 2008, representatives from the BDCP Steering Committee examined the role that storage could play in achieving the BDCP's water supply objective and found that increasing south of Delta storage could increase total Delta exports by up to 700 thousand acre-feet per year on average (BDCP, 2008 at p. 10). In 2009, DWR's Overview of the Draft Conservation Strategy for the Bay Delta Conservation Plan acknowledged that (DWR, 2009a at p. 19):</p> <p>"[e]ven with relatively restrictive rules for diversions, exports were limited by South of Delta storage. One model run indicated that expanding use of existing South of Delta storage, by approximately 1 million acre-feet, combined with a 15,000 cfs canal and dual diversion points, could significantly increase flexibility in meeting water supply and environmental objectives. The same is generally true related to North of Delta storage."</p> <p>After finding that new storage "could help advance water supply and conservation goals" and that "[s]ome combination of improved operations of existing storage, new surface storage, and expanded groundwater storage is likely to occur in the future and may result in changes to the way the Delta is operated," the same document identified "new water storage facilities" as a "pending issue" that the Steering Committee would consider "in detail and determine whether and how to address them within the BDCP." Id. at pp. 50-51. However, no further analysis of new storage was provided to the Steering Committee.</p> <p>The BDCP Draft EIR/EIS acknowledges that "water storage is a critically important tool for managing California's water resources," and devotes an appendix to the topic, but insists that pending water storage projects play no part in the EIR/EIS's analysis -- not as parts of the BDCP itself, not as parts of the 2060 No Action scenario, and not as cumulative projects. BDCP Draft EIR/EIS, Appendix 1B at p. 1B-1. The BDCP Draft EIR/EIS states:</p> <p>"[T]he BDCP, as a proposed habitat conservation plan and natural community conservation plan, does not, and need not, propose storage as a project component. Although the physical facilities contemplated by the BDCP, once up and running, would be part of an overall statewide water system of which new storage could someday also be a</p> | <p>The Proposed Project proposes to stabilize water supplies. Please see Master Response 37 regarding an alternative focused on creating additional storage, either in the Delta or elsewhere. Also, 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 required actions beyond the scope of the proposed project.</p> |

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| | | <p>part, the BDCP is a stand-alone project for purposes of CEQA and NEPA, just as future storage projects would be. Similarly, although new storage projects are the subject of ongoing discussions, and may well someday be formally proposed and subjected to environmental review, such projects have not reached the state of planning that would make them "probable future projects" for purpose of CEQA or "reasonably foreseeable future actions" for purposes of NEPA. Any such potential future projects therefore need not be addressed as part of the cumulative impacts analyses in the BDCP EIR/EIS. ... In short, this appendix is not required by either CEQA or NEPA, but was prepared for informational purposes." Id.</p> <p>This statement protests too much. It attempts to shield CM1 behind the BDCP's habitat conservation objectives and ignores the BDCP's water supply reliability objective, which is the reason for CM1. Common sense dictates that if a fundamental objective of the proposed project is to increase water supply reliability, and if the project without storage is likely to instead reduce water deliveries, and if water contractors will nevertheless spend at least</p> <p>\$16.3 billion on the project's water conveyance facility, then something is missing from the BDCP's project description and the EIR/EIS analysis. That something is most likely water storage. Because CM1 would not be proposed absent water storage projects -- several of which, have proceeded far beyond the "discussion" stage -- the BDCP Draft EIR/EIS must address the water supply and water quality impacts of CM1 taken together with those projects. Storage projects are in fact reasonably foreseeable and should have been included in one or more of the BDCP alternatives.</p> | |
| 1563 | 62 | <p>Failure to analyze water storage as part of the proposed project:</p> <p>"An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment whether the purpose can be achieved." County of Inyo v. City of Los Angeles, 124 Cal. App. 3d 1, 9 (1981) (invalidating water export EIR). Conservation Measure 1 is intended specifically to increase water supply reliability for south of Delta water contractors. The likelihood of achieving this purpose cannot be assessed without considering water storage.</p> <p>Moreover, both CEQA and NEPA prohibit "piecemealing" of project descriptions. See San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, 27 Cal. App. 4th 713, 730-734 (1994) (because residential development depended on wastewater treatment plant expansion, EIR's failure to analyze impacts of that expansion invalidated EIR; separate EIR for plant expansion did not excuse or remedy this failure); County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 195 (1977) (invalidating water export EIR that characterized groundwater exports as a separate, ongoing project); County of Inyo v. City of Los Angeles, 124 Cal. App. 3d at 7-8 (invalidating water export EIR that failed to describe or analyze surface water impacts).</p> <p>For an EIS prepared under NEPA, "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. [Section] 1502.4(a). A single NEPA document is required where one action will not proceed unless other actions are taken previously or simultaneously. 40 C.F.R. [Section] 1508.25(a). This test is commonly referred to as the "independent utility" test, which asks whether the project as described and the activity</p> | <p>For more information regarding alternatives to the Proposed Project please see Master Response 4.</p> <p>For more information regarding analysis of the Project as a whole please see Master Response 8.</p> <p>For information on reasons that additional water storage was not included in the Project, see Master Response 37.</p> |

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| | | being treated as separate would be pursued independently. As described above, CM1, which is intended specifically to increase water supply reliability for south of Delta water contractors, does not meet this test under Alternative 4. The water contractors are not proposing to spend \$16.3 billion in return for a reduced, or only slightly increased, water supply. In fact, absent storage, the BDCP shows that the water supply reliability in dry years, under Alternative 4, is less than the currently available supply. However, the bond payments on a project must be made regardless of the amount delivered in any year. Without storage, the BDCP will substantially increase dry year costs with a likely reduction in dry year supplies; it is not clear at all how this is economically viable absent new storage. | |
| 1563 | 63 | <p>Additional water storage can increase the amount of water that would flow to the south of Delta export contractors under the BDCP while meeting the other BDCP goals. Numerous proposals to construct and operate such storage are pending. The two projects that are most likely to enable the BDCP proponents to actually realize increased water supply reliability are the North-of-Delta Offstream Storage (NODOS) Project and the San Luis Reservoir Low Point Improvement/Expansion Project.</p> <p>The NODOS was one of five projects included in the 2000 CALFED[CA Bay-Delta Authority] Record of Decision and has been studied extensively since that date; the Notice of Preparation for its EIR and Notice of Intent for its EIS were issued in 2001 (U.S. Bureau of Reclamation and DWR, 2013). The NODOS calls for construction and operation of a new 1.3 to 1.8 million acre-foot Sites Reservoir, which is projected to increase water supply by 213 or 246 thousand acre-feet per year depending on the alternative selected. Id. at p. ES-23. (The BDCP Draft EIR/EIS Appendix 1B, using older information, reports this number as 183 thousand acre-feet per year. BDCP Draft EIR/EIS Appendix 1B, Table 1B-1 at p. 1B-11.) Although the BDCP proponents conducted other modeling in 2010 that included the NODOS and other CALFED surface storage projects (BDCP Draft EIR/EIS, Appendix 1B at p. 1B-12), the BDCP Draft EIR/EIS excludes the NODOS from its modeling. BDCP Draft EIR/EIS, Appendix 3D at p. 3D-91.</p> <p>The San Luis Reservoir Low Point Improvement project, which includes expansion of San Luis Reservoir, has a similarly long history, dating back to at least 2001 (Reclamation, 2013b at p. 1). The project would increase existing south of Delta storage at the San Luis Reservoir by up to 400 thousand acre-feet per year, depending on the alternative selected, increasing average annual Delta water exports by 43 to 71 thousand acre-feet per year under current operations and regulations. Id. at p. 2. The Draft Appraisal Report for the San Luis Reservoir Low Point Improvement Project refers specifically to the BDCP, stating that the BDCP "may or may not fully address delivery reliability issues related to San Luis Reservoir, and additional storage in San Luis Reservoir may be needed to further restore delivery reliability and system flexibility." Id. at p. 1. Despite this explicit link between the BDCP and San Luis Reservoir expansion, and despite the BDCP project proponents' earlier modeling of the BDCP along with south of the-Delta storage expansion (BDCP Draft EIR/EIS, Appendix 1B at p. 1B-12), the BDCP Draft EIR/EIS expressly declines to include the reservoir expansion in any of its analyses and does not include it in modeling. BDCP Draft EIR/EIS, Appendix 3D at p. 3D-98.</p> <p>By excluding both the NODOS and the San Luis Reservoir Expansion from its analysis, the BDCP Draft EIR/EIS fails to consider projects that could make the water contractors' \$16.3</p> | <p>Please see Section 1.C.3 of Appendix 1C, Water Demand Management) and Master Response 6 (Demand Management), as well as Master Response 7 (Desalination).</p> <p>Please see Master Response 37 regarding the reasons that an alternatives focused on creating additional storage, either in the Delta or elsewhere, was not included in the EIR/EIS.</p> |

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| | | <p>billion investment in CM1 worthwhile. This failure of analysis violates CEQA and NEPA. The impacts of these two water storage projects should be included in the With Project scenario for CM1 so that the BDCP modeling will include the "matters necessary to the assessment whether the [BDCP] purpose can be achieved." Because these projects are necessary to achieve the project objectives, their impacts should be disclosed. Further, if the BDCP project proponents are not committing to implement these projects along with CM1, then the decision-makers and public should be given enough information to understand the resulting environmental trade-off of approving CM1 both with and without these storage projects. Thus, the impact analysis should reveal both the benefits and adverse effects of the BDCP with and without the storage projects.</p> <p>At a minimum, the BDCP Draft EIR/EIS could have analyzed generic north and south of Delta storage projects at the programmatic level with the goal of improving water supply reliability while reducing environmental impacts. This is the approach that was taken by the BDCP technical teams in the early analysis of storage. The failure to consider either NODOS/San Luis Reservoir Expansion or generic north and south of Delta storage to develop a better project alternative, when the BDCP proponents have been urged to do so for almost eight years, and when their own studies (shown to the BDCP Steering Committee but not included in this Draft EIR/EIS) indicate that storage would allow them to meet the project objective of increased water supply reliability, is a serious flaw in the BDCP Draft EIR/EIS and must be corrected.</p> | |
| 1563 | 64 | <p>Failure to analyze the cumulative impacts of water storage projects:</p> <p>Even if the BDCP Draft EIR/EIS were not required to include key water storage projects in the With Project scenario for Conservation Measure 1, the EIR/EIS is required to analyze them as cumulative projects with respect to water supply and water quality impacts. The BDCP Draft EIR/EIS fails to do this with respect to NODOS and the San Luis Reservoir Expansion. These errors must be corrected in a revised Draft EIR/EIS.</p> <p>In Appendix 3D, Attachment 3D-A, the BDCP Draft EIR/EIS lists dozens of projects and states whether the EIR/EIS will include them in its Existing Conditions and No Action/No Project scenarios, or treat them as cumulative projects. The attachment states that the NODOS is a cumulative project and that the San Luis Reservoir expansion is not. BDCP Draft EIR/EIS at pp. 3D-83-84, 3D-91, 3D-98-99. The BDCP proponents have applied a standard for listing cumulative projects that is too narrow under CEQA and NEPA. Both of these projects meet the standard of "probable future projects" under CEQA and "reasonable foreseeable future actions" under NEPA. 14 Cal. Code Regs. [Section] 15130; 40 C.F.R. [Section] 1508.7. See <i>Gray v. County of Madera</i>, 167 Cal. App. 4th 1099, 1127-1128 (2008) ("any future project where the applicant has devoted significant time and financial resources to prepare for any regulatory review should be considered as probable future projects for the purposes of cumulative impact").</p> <p>As described above, both the NODOS and the San Luis Reservoir expansion have been under review for more than a decade and significant time and financial resources have been devoted to both projects. The projects constitute probable and reasonably foreseeable future projects and there are no arguments to the contrary. Nor can it be claimed that these projects, combined with the BDCP, could not alter the BDCP Draft EIR/EIS analysis of cumulative impacts to water supply and water quality.</p> | <p>The list of projects and policies considered in the cumulative impact analysis have been updated following publication of the 2013 Draft EIR/EIS and are presented in Appendix 3D and the resources chapters of the Final EIR/EIS including San Luis Reservoir Expansion, San Joaquin River Upstream Investigation, and North of Delta Offstream Storage projects, among others.</p> |

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| | | Nevertheless, the BDCP Draft EIR/EIS sections purporting to address cumulative water supply and water quality impacts do not include even the NODOS -- which the Draft EIR/EIS states is a cumulative project -- much less San Luis Reservoir. See BDCP Draft EIR/EIS, Chap. 5, Table 5-8 (projects considered for water supply cumulative impacts analysis), and Chap. 8, Table 8-73 (projects considered for water quality cumulative impacts analysis). Cumulative impacts analyses that take these projects into account must be prepared. | |
| 1563 | 65 | <p>The BDCP Draft EIR/EIS fails to adequately describe the proposed habitat restoration projects.</p> <p>The BDCP Draft EIR/EIS purports to evaluate at a program level the "broad environmental effects of the overall BDCP conservation strategy" that is reflected in Conservation Measures (CM) 2 through 22 (BDCP Draft EIR/EIS, Chap. 4 at p. 4-2). As the basis for this approach, the BDCP Draft EIR/EIS explains that the overall conservation strategy is subject to "adjustments and modifications" as new information becomes available over time, that the locations for the habitat restoration and preservation actions "have not been specifically identified at this time," and that the design information for the conservation strategies "is currently at a conceptual level." (Id.) Thus, the environmental analysis looks at the effects of "typical construction, operation, and maintenance activities that would be undertaken for implementation of CM2 through 22 at a program-level of analysis, describing what environmental effects may occur in future project phases." (Id.)</p> <p>But the description of the conservation program is so vague and indefinite that the BDCP Draft EIR/EIS presents a wholly incomplete picture of what environmental effects may occur due to the future implementation of the Conservation Measures. Any habitat restoration actions that occur within the waters of the Delta or upstream rivers and floodplains (which includes habitat restoration actions under Conservation Measures 2, 4, 5, 6, 7, and 10) could affect the movement of water, the amount of tidal exchange, the extent of salinity intrusion, the quality of water in Delta channels, and -- through actions to meet water quality objectives -- the supply of water to the State Water Project and Central Valley Project. The nature, range and extent of the impacts resulting from the habitat restoration actions depend largely on their location, sequence, and design. But there is no description or evaluation of these key variables and how they could affect the timing and magnitude of the impacts. This omission in the description of the conservation program creates a gap in the environmental analysis, which fails to address the near-term impacts resulting from habitat restoration actions that are planned to be implemented before the start of operation of CM1. The BDCP Draft EIR/EIS compounds this error by failing to make any distinction between the longer-term impacts caused by the habitat restoration actions and the impacts caused by CM1. Further, contrary to the stated aim of the BDCP Draft EIR/EIS to describe "what environmental effects may occur in future project phases" (BDCP Draft EIR/EIS, Chap. 4 at p. 4-2), the document fails to disclose the full range of impacts that could occur from the future habitat restoration actions.</p> <p>These deficiencies thwart the basic purposes of using a program-level environmental analysis. As the CEQA Guidelines explain, the advantages of a program-level review include providing an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual project; ensuring consideration of cumulative impacts that might be slighted in a case-by-case analysis; and</p> | <p>The analysis for Conservation Measures 2-21 was completed at a programmatic level, as described in Chapter 4 of the EIR/EIS and meets NEPA and CEQA requirements. Alternative 4 remains a viable alternative.</p> <p>However, a modified proposed project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include Conservation Measures 2 through 21. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP.</p> |

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| | | <p>allowing the lead agency to consider broad alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts. See Cal. Code Regs. Title 14 (CEQA Guidelines) [Section] 15168(b)(1), (2), (4). But instead of providing for a comprehensive evaluation of the potential impacts from the habitat restoration actions, the BDCP Draft EIR/EIS hides the impacts and lumps them together with the impacts from CM1. And instead of providing for program-wide mitigation at an early stage in the process to guide the implementation of future site-specific habitat restoration actions -- mitigation that could be devised to ensure that the individual actions are located, sequenced and designed in a way that achieves benefits for species while also avoiding or minimizing net degradation of water quality -- the analysis and mitigation of impacts are deferred until later project-specific review, precisely when the lead agency no longer has the program-wide flexibility that it has during its initial program-level review.</p> <p>The commitment to conduct future site-specific environmental review does not cure these problems. It is true that detailed site-specific environmental review of each habitat restoration action will be required as the relevant information for each such action becomes available. But this future review does not obviate the need to evaluate and mitigate now the adverse impacts that the program-wide approval of habitat restoration could cause. Put another way, the BDCP Draft EIR/EIS needs to address up front the impacts resulting from the program, rather than putting off the analysis to the later consideration of each specific piece of the program that comes up in the future.</p> | |
| 1563 | 66 | <p>The BDCP Draft EIR/EIS contains only limited information about the proposed habitat restoration program.</p> <p>The BDCP includes plans to restore more than 80,000 acres of habitat -- including 65,000 acres of tidal natural communities under Conservation Measure 4 (CM4), 10,000 acres of seasonally inundated floodplain (CM5), 20 miles of channel margin enhancement (CM6), 5,000 acres of riparian restoration (CM7), and 1,700 acres of nontidal marsh (CM10), as well as modifications to the timing, frequency, and duration of inundation of an existing seasonal floodplain (CM2). While each of the measures would affect water quality and water supply, very limited information is provided about the program, how it would be implemented, and what impacts it would have.</p> <p>For example, the overall plan is that CM4 would provide for the restoration of 65,000 acres of tidal natural communities and transitional uplands, with minimum acreage targets for different "Restoration Opportunity Areas." BDCP, Chap. 3 at p. 3.3-6 (Objective L.1.3);</p> <p>BDCP Draft EIR/EIS, Chap. 3 at pp. 3-130 to 3-131. But the BDCP states that the biological objectives that establish these numbers will be reexamined through an adaptive management program and may be modified or even eliminated. BDCP, Chap. 3, Table 3.6-1 at p. 3.6-3. Therefore, the overall acreage of habitat restoration to be developed, as well as the acreage in each Restoration Opportunity Area, is far from certain.</p> <p>In addition, while there is some design information available for some of the restoration actions, most of the acreage has not been identified. A portion of the 14,000 acres of near-term CM4 restoration projects have been planned; for the areas that have been planned, the locations of levee breaches were provided by the Delta Habitat Conservation</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. It also should be noted that habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternative 4A. Please see Master Response 5 related to the status of the BDCP.</p> |

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| | | <p>and Conveyance Program. BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2 at p. 4. However, the remaining 51,000 acres, or nearly 80%, of the tidal marsh habitat anticipated as part of CM4 have not yet been planned and there is no design information available.</p> <p>In light of these significant uncertainties about the habitat restoration program, it is critically important to explain and assess the key variables that will influence the nature and magnitude of the water quality and water supply impacts that would result from future habitat restoration actions.</p> | |
| 1563 | 67 | <p>Assessing Delta water quality and water supply impacts requires an evaluation of the location, timing and design of the habitat restoration actions.</p> <p>To assess the potential impacts of habitat restoration on water quality and water supply, it is important to evaluate the following variables: the location of the habitat restoration actions and their connectivity to surrounding Delta channels; the timing of implementation in relation to other habitat restoration projects; and specific design elements that control the movement and mixing of waters in the area. Each of these factors is discussed below, with examples from Delta restoration projects to illustrate the importance of assessing this information.</p> <p>Location and connectivity: The location of proposed tidal marsh and its connectivity to the existing Delta channels have a large effect on the movement of water and mixing of water quality constituents, such as salt. For instance, analysis of two different groups of restoration sites in Suisun Marsh reveals dramatically different changes to salinity in the Delta (Resource Management Associates, 2013). As shown in Figure 1-1 (panel (a) -- top map [see ATT A]), the group of restoration sites located primarily adjacent to Suisun Bay would increase salinity in the western, central, and southern Delta, generally by 10 to 15 percent (top map). On the other hand, as shown in Figure 1-1 (panel (b) -- bottom map [see ATT A]), the group of restoration sites located farther north in Suisun Marsh, with no direct connectivity to Suisun Bay, would decrease salinity in the same region on the same day, generally by 10 to 20 percent.</p> <p>Timing of implementation in relation to other habitat projects: Independent modeling performed for the Suisun Marsh EIS/EIR (Reclamation et al., 2011) shows that the order of implementation of restoration projects can have a large effect on water quality. The Suisun Marsh EIR modeled two broad swaths of areas containing multiple restoration sites and two smaller subsets where smaller individual sites were examined in isolation. The results show that the combination of individual restoration sites determines the overall water quality impact, depending on which projects are included and the order in which they are implemented. Some of the sites modeled would increase salinity in the western Delta by up to 12% while some would decrease salinity. Thus, if individual restoration projects that increase salinity were to be implemented at the same time, and before projects that decrease salinity were implemented, the increase in salinity would be substantial and municipal water users in the Delta would be significantly affected. However, if habitat restoration projects that decrease salinity were to be implemented before or in conjunction with other restoration projects that increase salinity, salinity effects could be regulated to avoid or minimize water quality degradation.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. It also should be noted that habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternative 4A. Please see Master Response 5 related to the status of the BDCP.</p> <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.</p> |

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| 1563 | 68 | [ATT A: Figure 1-1. Effect of tidal marsh restoration on Delta salinity depends on location of proposed tidal marsh and connectivity to the channels.] | Please refer to Master Response 5 related to the status of the BDCP. |
| 1563 | 69 | <p>Design elements: The location and size of breaches in the levees that surround potential restoration sites have a dramatic effect on the flows and water quality within and adjacent to proposed habitat restoration sites. Independent modeling performed for the Prospect Island Tidal Habitat Restoration Project (included in the BDCP near-term habitat restoration actions in the Cache Slough Restoration Opportunity Area) demonstrates the significant differences in water quality that can arise from relatively small differences in habitat design.</p> <p>During screening level analysis, fifteen alternatives were evaluated to determine the potential to maximize food web productivity within the restoration site. The only difference between the alternatives was the location and size of breaches in the levees that surround Prospect Island and in a levee inside Prospect Island (RMA, 2013). The modeling results are presented in Figure 1-2 [see ATT B], which depicts the areas of the restoration site as colored to show the type of algal community that would be likely to grow based on the simulated exposure time. As shown in Figure 1-2, the acreage that would be likely to produce benefits and the acreage that would be likely to produce adverse impacts varies widely between the alternatives that were studied. Although the focus of the analysis was the potential adverse or beneficial impact on covered fish, the production of different algal communities would also impact drinking water quality.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. Please refer to Master Response 4 related to Alternatives Analysis and Master Response 5 related to the status of the BDCP.</p> |
| 1563 | 70 | [ATT B: Figure 1-2. Potential benefits and impacts of restoration at Prospect Island depend on design elements regarding the connectivity of the interior island to the surrounding channels.] | Please refer to Master Response 5 related to the status of the BDCP. |
| 1563 | 71 | <p>A more recent analysis of the Prospect Island Tidal Habitat Restoration Project evaluated the changes in turbidity that could result from a relatively minor change in the type of levee breach (MacWilliams et al., 2014). One of the alternatives in this analysis (Alternative A) would have a weir at the north of the island, while another alternative (Alternative B) would have a breach in the levee at the same location in the north end of the island. Thus, the difference between the two alternatives is the size of the connection between the restoration site and the adjacent channel. As shown in the first panel of Figure 1-3 below (panel (a) [see ATT C]), turbidity under Alternative A would be up to 200 times lower in the north of the island than under Alternative B for the exact same flow conditions. Furthermore, as shown in the second panel of Figure 1-3 below (panel (b)), the change in turbidity due to the restoration action would extend outside of the restoration site. Although both alternatives would reduce turbidity in the region, Alternative B would have a much greater effect, reducing turbidity in the Deep Water Ship Channel by 10 to 25 nephelometric turbidity units (NTU) and reducing turbidity in lower Liberty Island by 5 to 10 NTU.</p> <p>Additionally, the shape of the restoration site in relation to the dominant wind direction, the ground elevation, channel design, vegetation type, and relation to other restoration projects in the Delta all have a significant influence over the flows and water quality in the region. For example, in Mildred Island (which flooded in 1983, creating tidal habitat), the southeast corner of the habitat experiences the highest productivity due to the lack of flushing by tides and freshwater flows; yet when the dominant wind direction shifts, the</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>Potential effects of the habitat restoration areas under Alternatives 1 through 9 on turbidity and salinity have been assessed in Chapter 8.</p> |

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| | | <p>area can be flushed, forcing exchange with nearby areas (Serenio et al., 2003). In Franks Tract, growth of submerged water weeds from the spring through early fall effectively channelizes the open water area. In late summer and fall when the weeds fill the full water column, residence time is increased within the vegetation and greatly reduced within the open water areas, with limited mixing between the regions (Serenio and Stacey, 2004). Due to the longer residence time and limited mixing, waters within the vegetation are warmer than the adjacent open water, and as salinity intrudes during the fall, salinity in the open water areas is greater than it would be without the vegetation.</p> <p>These examples highlight the importance of establishing and assessing parameters for the particular design elements of habitat restoration actions to evaluate and mitigate their potential water quality and water supply impacts.</p> | |
| 1563 | 72 | [See ATT C: Figure 1-3. Prospect Island and Liberty Island during a high outflow event illustrating (a) turbidity and (b) change in turbidity for two different habitat restoration alternatives on Prospect Island.] | This comment describes an attachment to the comment letter that was prepared for a separate project related to restoration of Prospect Island that is undergoing separate engineering and environmental analysis. Please see above response to comment. |
| 1563 | 73 | <p>More information is needed to adequately evaluate the water quality and water supply effects of the habitat restoration actions.</p> <p>Failure to describe near-term actions and resulting impacts:</p> <p>The BDCP Draft EIR/EIS recognizes that habitat restoration actions could have adverse salinity and other water quality impacts within the Delta. For example, the BDCP Draft EIR/EIS acknowledges that the implementation of Conservation Measure 4 (CM4) could affect Delta hydrodynamics, affect the mixing of source waters, and increase the volume of tidal water exchange in the Delta -- thereby increasing levels of bromide, chloride, and electrical conductivity. See, e.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-416 to 8-422 (bromide); 8-423 to 8-431 (chloride); 8-436 to 8-442 (electrical conductivity).</p> <p>Yet the evaluation of water quality impacts in the BDCP Draft EIR/EIS does not disclose what the near-term habitat restoration actions under CM4 would consist of prior to the implementation of CM1 and the BDCP Draft EIR/EIS omits an assessment of what the near-term negative impacts of those actions could be. Since some location and design information is available for the near-term habitat restoration actions included within the BDCP, the BDCP Draft EIR/EIS could have analyzed the near-term effects of these actions. But the BDCP Draft EIR/EIS overlooks this near-term analysis; instead, the evaluation of water quality impacts focuses on full implementation of all of the restoration actions, encompassing 65,000 acres of tidal marsh developed under CM4, completed by the year 2060. See, e.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-4 to 8-5 (water quality impact analysis assumes implementation of conservation measures and assesses future project conditions in 2060).</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>Without the large-scale tidal habitat restoration, Alternative 4A, 2D, and 5A have considerably lower impacts to bromide, chloride and electrical conductivity (EC), relative to those identified for Alternatives 1 through 9. Further, without the large-scale tidal habitat hydrodynamic bromide, chloride, and EC concentrations are less in Alternatives 4A, 2D, and 5A are substantially less than under Alternatives 1 through 9 described in the 2013 Draft EIR/EIS. Significant impacts to EC are still identified for Alternatives 4A, 2D, and 5A as compared to the Existing Conditions and No Action Alternative; however, those impacts would be reduced to a less than significant level with mitigation and compliance with Delta objectives.</p> <p>Potential effects of the habitat restoration areas under Alternatives 1 through 9 on turbidity and salinity have been assessed in Chapter 8.</p> |
| 1563 | 74 | It is therefore impossible to know what the salinity impacts from the habitat restoration actions could be during the initial phase of the BDCP's implementation. These near term impacts can be substantial depending upon the location, design parameters and sequence in which the restoration activities are conducted. It is important to know what these impacts could be, especially since CM1 is not projected to be operational until 11 years after the project is approved, while habitat restoration actions under CM4 are planned to start operation -- and would thus start affecting water quality -- much earlier | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration. Please see Master Response 5 for status of BDCP.</p> |

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| | | than that. BDCP, Chap. 6, Table 6-1 at p. 6-3, & Table 6-2 at p. 6-5. [Using] an improper environmental baseline, this failure to disclose and analyze the near-term components and impacts of the BDCP is a violation of CEQA and NEPA. The failure to provide for any mitigation for near-term impacts is equally improper. | |
| 1563 | 75 | <p>Failure to distinguish impacts of habitat restoration from impacts of water conveyance facilities:</p> <p>The BDCP Draft EIR/EIS compounds an error by failing to enable the reader to distinguish the adverse salinity impacts of the habitat restoration actions from the adverse salinity impacts of CM1, the water conveyance facilities. Instead, the BDCP Draft EIR/EIS simply lumps the impacts from habitat restoration together with the impacts of CM1. The document states: "Modeling scenarios included assumptions regarding how certain habitat restoration activities (CM2 and CM4) would affect Delta hydrodynamics. To the extent that restoration actions alter hydrodynamics within the Delta region, which affects mixing of source waters, these effects are included in this assessment of operations-related water quality changes (i.e., CM1)." This statement is repeated throughout the analysis. See, e.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-416, 8-423 to 8-424, 8-436, 8-443, 8-448, etc.</p> <p>The BDCP Draft EIR/EIS states that water quality changes related to project operations "would be partly driven by geographic and hydrodynamic changes resulting from restoration actions (i.e., altered hydrodynamics attributable to new areas of tidal wetlands (CM4), for example)." BDCP Draft EIR/EIS, Chap. 8 at p. 8-4. But there is no attempt to clarify the extent to which CM1 would cause the negative impacts versus the extent to which the habitat restoration actions would cause the impacts. Rather, the BDCP Draft EIR/EIS asserts: "There is no way to disentangle the hydrodynamic effects of CM4 and other restoration measures from CM1, since the Delta as a whole is modeled with both CM1 and the other conservation measures implemented." <i>Id.</i> (emphasis added). But the hydrodynamic effects can and should be disentangled.</p> <p>As a result of this undifferentiated impact assessment, the description and analysis of the habitat restoration "program" is so vague that the reader has no basis to discern what the actual water quality effects of that program could be, either in the short-term or in the many years leading up to 2060, or even in 2060 after the program is fully implemented. This makes it impossible to meaningfully consider program-wide mitigation to guide future site-specific actions. The curtailed description and analysis of the BDCP's habitat restoration program therefore defeats CEQA's public participation and informational goals. See [elsewhere in] these comments for further discussion of the problems that arise from the inability to distinguish the impacts of CM1 from those of CM4.</p> <p>To provide for a meaningful and intelligent evaluation of the habitat restoration program, the BDCP Draft EIR/EIS must isolate the habitat restoration actions and their impacts from the water conveyance facilities. [Footnote 6: This necessary step is consistent with the findings of BDCP Steering Committee representatives at the "BDCP Modeling for Modelers" meetings in 2010, which recommended an independent analysis of CM1 in the absence of the habitat restoration actions and is consistent with the findings of the panel of independent scientists who reviewed the BDCP effects analysis (Parker et al., 2014 at p. 47).] Without this important revision, the BDCP Draft EIR/EIS cannot serve as a valid basis</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>In Chapter 8 of the EIR/EIS, Each impact is analyzed separately for its effects resulting from "facilities operations and maintenance" and from "implementation of environmental commitments." For example under Chapter 8 in the EIR/EIS Impact WQ-11 is "Effects on Electrical Conductivity Concentrations Resulting from Facilities Operations and Maintenance" and Impact WQ-12 is "Effects on Electrical Conductivity Resulting from Implementation of Environmental Commitments 3, 4, 6–12, 15 and 16." Alternative 4A would have substantially less effect on Delta water quality relative to the former preferred alternative (Alternative 4, BDCP) 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. Please see Master Response 14 regarding water quality impacts.</p> |

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| | | for the future decisions about individual habitat restoration actions. | |
| 1563 | 76 | <p>Failure to describe the key variables and the full range of impacts:</p> <p>The location, timing and design of the habitat restoration actions are key variables in assessing the impacts the actions would have on water quality and water supply. But the BDCP Draft EIR/EIS does not explain these key variables or assess how they could influence the impact analysis. Instead, the BDCP Draft EIR/EIS states that the analysis is based on "typical" habitat restoration projects. BDCP Draft EIR/EIS, Chap. 4 at p. 4-2. This results in an incomplete picture of the potential impacts.</p> <p>For the habitat restoration actions, the BDCP Draft EIR/EIS minimizes the potential scope of the impacts by including a mixture of sites that would both increase and decrease salinity. For example, modeled Suisun Marsh restoration includes both salinity-increasing and salinity-decreasing sites, although there is no commitment to this specific configuration. BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2, Figure 2-16 (in comparison to Figure 1-1 above). The generic assumptions used in the BDCP analysis hide the level of impacts that would occur if more sites were chosen that increase salinity -- and the public has no way of knowing that the negative impacts could be greater than what is represented. The failure to disclose the full range of impacts also prevents the analysis of program-wide mitigation, which would require future habitat restoration actions to be located, sequenced and designed in an integrated manner to avoid or reduce the degradation of water quality. Instead, these important program-level considerations are improperly deferred to future site-specific actions, when it will no longer be practical to evaluate broad mitigation on a program-wide basis.</p> <p>With respect to the sequencing of habitat restoration actions, the BDCP Draft EIR/EIS completely avoids this issue by basing the environmental analysis solely on the completion of all of the restoration acreage, totaling tens of thousands of acres, by the year 2060. Thus, the reader has no way to know that the adverse salinity impacts from the BDCP may be even more significant in 2020, 2030, 2040 or 2050 than what is projected in the BDCP Draft EIR/EIS, depending on how the future restoration projects are staged and configured. And again, there is no program-wide consideration of how to locate, sequence and design these future actions so that they constitute an integrated set of actions that is designed to avoid or reduce water quality degradation.</p> <p>For the design features of the habitat restoration actions, the BDCP Draft EIR/EIS uses generic assumptions about levee breach locations and depths where no design information was available. The document states: "For restoration areas that are not part of currently planned actions, levee breaches were generally located near the deepest part of the restoration area or where there were existing channels in the Base grid." BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2 at p. 4. As noted above, over 80% of the habitat acreage planned under CM4 is "not part of currently planned actions," so the generic levee breach assumptions were applied to most of the acreage. As shown above by the Prospect Island example, the choice of levee breach locations can have significant impacts on water quality. But as with the other aspects of the habitat restoration program, the reader has no way to discern how the key design variables would affect the impact analysis and what the full range of impacts could be, depending on how future individual restoration actions are configured. Furthermore, the generic assumptions used in the analysis tend to underestimate salinity and temperature, thus underestimating</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>Please see Master Response 14 regarding water quality analyses. Please see Master Response 2 regarding the level of detail needed for the program-level of analysis for restoration under Alternatives 1 through 9.</p> |

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| | | water quality impacts. Equally important, there is no consideration of program-wide mitigation that includes designing future site-specific actions to avoid or reduce water quality degradation. | |
| 1563 | 77 | <p>The BDCP Draft EIR/EIS claims to be using a program-level approach, but is in fact using an ill-defined description of the program to avoid analysis and mitigation of program impacts and to defer that analysis and mitigation until after the program is adopted. This is improper.</p> <p>The program-level analysis should have provided an opportunity for the BDCP project proponents to develop a governing set of policies and principles to guide the location, sequence and design of future site-specific restoration actions to ensure that the overall habitat restoration program would be self-mitigating as it is implemented. For example, individual restoration actions that decrease salinity could be implemented before other actions that would increase salinity, such that the overall net effect would not degrade water quality. The BDCP Draft EIR/EIS misses this key opportunity, negating the purpose of using a program-level analysis. See, e.g., CEQA Guidelines [Section] 15168(b)(4) (program EIR allows lead agency "to consider broad policy alternatives and program wide mitigation at an early time when the agency has greater flexibility to deal with basic problems").</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>For more information regarding project and program level analysis please see Master Response 2. Please see Master Response 14 regarding water quality analyses and Master Response 9 related to Cumulative Impacts Analysis.</p> <p>The Cumulative Impact Analyses has been revised following publication of the 2013 Draft EIR/EIS to include the impacts associated with the new Proposed Project (Alternative 4A) and Alternatives 2D and 5A; and to include additional future potential projects, as described in each resource chapter and Appendix 3D of the Final EIR/EIS.</p> |
| 1563 | 78 | <p>The promise to conduct future studies does not remedy the inadequate project description.</p> <p>The BDCP Draft EIR/EIS indicates that each "later activity" associated with the Conservation Measures will be evaluated in the future "to determine whether the later activity has been adequately examined in the BDCP EIR/EIS." BDCP Draft EIR/EIS, Appendix 31A at p. 31A-2. This evaluation is meant to ascertain whether the later activity would have effects that were not examined in the program-level analysis. Id. But the description and analysis of the habitat restoration program in the BDCP Draft EIR/EIS is so vague that it does not allow for a meaningful evaluation of future site-specific restoration actions. For example, given that there is no analysis of the effects near-term habitat restoration would have on water quality in the Delta, the BDCP Draft EIR/EIS cannot provide coverage for any future restoration actions completed before CM1 is built. The document similarly fails to provide coverage for future individual restoration actions completed after CM1 becomes operational--the water quality impacts attributable to the hydrodynamic changes caused by Conservation Measures 2 through 11 are not identified or disclosed so that they can be ascertained apart from the impacts of CM1, nor are the impacts bracketed to account for the range of variable effects that could occur over time, depending on how the future restoration actions are configured, sequenced and designed in the years leading up to the completion of the planned 65,000 acres.</p> <p>Future site-specific environmental review will be required for each habitat restoration project as relevant information becomes available. Given the lack of adequate analysis in the BDCP Draft EIR/EIS, a new review will be required for each such project and it would be inappropriate to rely on the current document.</p> <p>The future environmental review that would take place for the individual habitat restoration projects does not resolve the current flaws in the BDCP Draft EIR/EIS. CEQA requires that public agencies evaluate the potential impacts of their approvals before the</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration. Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis.</p> <p>The Environmental Commitments included in the Proposed Project to minimize potential adverse effects of action alternatives as compared to the Existing Conditions and No Action Alternative are presented in Appendix 3B and have been expanded following publication of the 2013 Draft EIR/EIS.</p> |

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| | | <p>approvals are made. CEQA Guidelines Section 15004(a). Here, DWR may not properly approve the Conservation Measures without first conducting a meaningful evaluation of the adverse impacts that this approval could cause. This has not yet been done. For the reasons discussed above, the discussion and analysis of the planned habitat restoration actions do not meet the fundamental requirements for a project description, and thus for a legally adequate environmental review.</p> <p>The flaws in the project description also are not cured by the commitment made in an appendix to the BDCP Draft EIR/EIS, where "BDCP proponents commit to assisting in-Delta municipal, industrial, and agricultural water purveyors that would be subject to significant water quality effects from operation of Conservation Measure 1 (CM1) and effects on dissolved organic carbon (DOC) due to implementation of Conservation Measures 2-22 (CM2-22)". BDCP Draft EIR/EIS, Appendix 3B at p. 3B-42. This "non-environmental" commitment does not remediate the failure of the BDCP Draft EIR/EIS to provide an adequate environmental analysis that informs the public and the decision-makers about the proposed project, its adverse impacts, and possible mitigation. Nor does this "commitment" constitute a valid, binding mitigation measure.</p> | |
| 1563 | 79 | <p>The impacts analysis is deficient.</p> <p>The environmental impacts of the proposed project are not adequately disclosed and analyzed as compared to the environmental baseline.</p> <p>The CEQA Guidelines require that "[a]n EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published" CEQA Guideline [Section] 15125(a). As provided in the Guidelines, this existing environmental setting "will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." Id. By describing and quantifying the effects of the proposed project against the baseline physical conditions, the EIR serves CEQA's fundamental goal of informing the decision-makers and the public about the project's environmental impacts. See <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439, 447 (2013), citing <i>Communities for a Better Environment v. South Coast Air Quality Management District</i>, 48 Cal. 4th 310, 315 (2010).</p> <p>The BDCP Draft EIR/EIS asserts that the CEQA baseline it uses is consistent with these principles and that the baseline has been developed "to assess the significance of the impacts of the BDCP alternatives in relation to the existing conditions at the time of the NOP (Notice of Preparation)." BDCP Draft EIR/EIS, Ch. 4 at p. 4-4. In particular, the BDCP Draft EIR/EIS states that the assumptions for the existing conditions baseline under CEQA "include facilities and ongoing programs that existed as of February 13, 2009 (publication date of the most recent NOP and Notice of Intent [NOI] to prepare this EIS/EIR), that could affect or could be affected by implementation of the BDCP." Id. at p. 4-4.</p> <p>But given that the February 2009 CEQA baseline date is now more than five years old, it is plainly out of date and excludes important Delta water infrastructure projects and operations that are part of today's physical environment. To provide a full and accurate assessment of how the project would affect the existing environment, the old baseline needs to be updated to present a realistic picture of the conditions prevailing at the time the environmental review is being conducted, rather than relying on an obsolete</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration. Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis.</p> <p>Please see Master Response 1 related to the CEQA baseline.</p> <p>Please note that Alternatives 4A, 2D and 5A and the related No Action Alternative are evaluated at conditions approximately 15 years in the future (approximately 2025/2030).</p> |

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| | | <p>depiction of the environmental setting. Worse yet, the environmental baseline used in the BDCP Draft EIR/EIS does not even include all of the regulatory programs and requirements that existed as of the February 2009 CEQA Notice of Preparation.</p> <p>The BDCP Draft EIR/EIS further conceals the project's environmental impacts by failing to compare those impacts against the existing conditions CEQA baseline that it purports to use. Instead, the BDCP Draft EIR/EIS compares future cumulative conditions in the year 2060 -- which include BDCP project operations, as well as other independent, possible future projects and the possible future effects of climate change -- to the existing conditions baseline. The resulting analysis makes it impossible to distinguish the project's impacts as compared to the CEQA baseline from the impacts of other projects that might be implemented by 2060, the impacts of climate change that are assumed in 2060, and the impacts of other presumed changes in background conditions that are built into the 2060 "with project" scenario. The project's impacts are thereby obscured and the BDCP Draft EIR/EIS thus thwarts CEQA's core purpose, which is to provide a clear picture of the project's impacts to decision makers and the public.</p> <p>Perhaps because the BDCP proponents recognize that the CEQA analysis is fatally flawed, the BDCP Draft EIR/EIS frequently refers to the NEPA analysis, which compares projected conditions in 2060 with and without the BDCP. BDCP Draft EIR/EIS, Chap. 4 at p. 4-6. But the 2060 NEPA analysis cannot be used to prop up the defective CEQA analysis. While the NEPA analysis purports to isolate the project's effects by holding other conditions constant, this analysis is limited to the impacts that are estimated to occur 46 years from now. There is no information or analysis, under either CEQA or NEPA, about the impacts that could occur sooner than that.</p> <p>The BDCP Draft EIR/EIS goes so far as to quote the recent warning from the California Supreme Court that:</p> <p>"An EIR stating that in 20 or 30 years the project will improve the environment, but neglecting, without justification, to provide any evaluation of the project's impacts in the meantime does not give due consideration to both the short-term and long-term effects of the project . . . and does not serve CEQA's informational purpose well."</p> <p>BDCP Draft EIS/EIR, Chap. 4 at p. 4-4 & Appendix 3D at p. 3D-2 (quoting <i>Neighbors for Smart Rail</i>, 57 Cal. 4th at 455). But in omitting any analysis of potential near-term and mid-term impacts of the project, the BDCP Draft EIR/EIS violates both CEQA and NEPA. See 40 C.F.R. [Section] 1508.27(a) (in assessing the significance of an environmental impact under NEPA, "[b]oth short- and long-term effects are relevant").</p> | |
| 1563 | 80 | <p>As explained more fully below, the environmental baseline used in the BDCP Draft EIR/EIS, and the assessment of the impacts of the proposed project as compared against the baseline, are deficient.</p> <p>The CEQA baseline improperly excludes important components of the existing environmental setting. This makes the baseline environmental conditions look worse than they really are and thereby falsely minimizes the project's impacts as measured against those conditions.</p> <p>For example, the baseline scenario does not include the operation of Contra Costa Water</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance.</p> <p>Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis and Master Response 1 related to Baseline analysis.</p> |

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| | | <p>District's Middle River intake, even though the environmental review for the project was completed in 2006 and the intake became operational in 2010. The Middle River intake was designed and constructed to protect against seasonal fluctuations and long-term degradation of Delta drinking water quality -- important benefits that would be undermined by operations of the BDCP. By excluding the Middle River intake from the baseline, the BDCP Draft EIR/EIS does not accurately depict the physical conditions that actually exist at the time the environmental analysis for the BDCP is being conducted.</p> <p>The BDCP Draft EIR/EIS similarly errs in excluding from the baseline scenario CCWD's expansion of its Los Vaqueros Reservoir, another project that was designed to improve water supply reliability and drinking water quality. The environmental review for the expansion was completed in 2010 and the expanded reservoir became operational in 2012. By excluding these two projects from the environmental baseline, the BDCP Draft EIR/EIS does not correctly describe the existing physical conditions that would be affected by the BDCP when it starts operation. The BDCP Draft EIR/EIS therefore provides a faulty starting point for the CEQA analysis.</p> <p>The baseline scenario also does not assume implementation of the Fall X2 requirement imposed by the 2008 Biological Opinion issued by the U.S. Fish & Wildlife Service (USFWS) for the coordinated operations of the Central Valley Project (CVP) and State Water Project (SWP). This important regulatory standard necessitates the release of CVP and SWP water through the Delta in the fall months of wet and above normal water years to ensure that flows are sufficient to moderate salinity. By assuming that the existing Fall X2 standards are not implemented under baseline conditions, the BDCP Draft EIR/EIS makes it appear that the baseline water quality conditions in the Delta are worse than they are allowed to be under existing regulatory requirements.</p> <p>The BDCP Draft EIR/EIS then compounds this error by assuming that the Fall X2 requirement will be implemented if several of the BDCP project scenarios are approved -- thus making it appear that this component of the BDCP would improve water quality conditions in the Delta as compared to existing conditions, even though the requirement was adopted independent of the BDCP prior to the 2009 CEQA baseline date. This is improper.</p> | |
| 1563 | 81 | <p>While the BDCP Draft EIR/EIS says that the CEQA analysis evaluates the impacts of the BDCP project and alternatives as compared to the existing conditions baseline, the document does not actually make this assessment for a number of key impacts. Instead, the document includes within the impact analyses and findings for the BDCP scenarios the anticipated future cumulative effects from other independent possible future projects, actions and conditions that are not part of the BDCP. This obscures the project-specific environmental impacts that are attributable to the approval and implementation of the BDCP.</p> <p>For example, the BDCP Draft EIR/EIS incorporates into the BDCP scenarios two other possible future projects that would improve water quality in the Delta: the construction of upgrades to the Sacramento Regional Wastewater Treatment Plant and future actions to implement the Grassland Bypass Project. By folding these other projects into the BDCP scenarios, the benefits of these future projects mask the adverse impacts of the BDCP. Put another way, the BDCP takes the credit for the environmental benefits that are expected to occur from these other, independent projects, which are not proposed for</p> | <p>Please see Appendix 3D of the EIR/EIS, related to the Grasslands Bypass project related to Existing Conditions assumptions.</p> <p>Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis and Master Response 4 related to alternatives analysis.</p> |

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| | | <p>approval as part of the BDCP. To provide an accurate accounting of the adverse effects of the BDCP in comparison to the CEQA baseline, the benefits that might occur from these different projects, which may or may not be fully implemented, should not be folded into the BDCP impact analysis.</p> <p>The environmental analysis also folds into the BDCP scenarios other changes that might occur independently from the approval and implementation of the BDCP. The most extreme example is climate change. The BDCP Draft EIR/EIS includes in the modeling for all of the BDCP scenarios dramatic changes in sea level and precipitation assumed to result from climate change by the year 2060. The BDCP Draft EIR/EIS admits that this approach, which involves predicting future conditions nearly 50 years after the environmental analysis is conducted, makes it impossible to distinguish the impacts from the BDCP scenarios as measured against existing conditions from the separate impacts resulting from climate change. BDCP Draft EIR/EIS, Chap. 5 at p. 5-49. The reader is left with no way to discern the project-specific impacts of the BDCP in relation to the CEQA baseline.</p> | |
| 1563 | 82 | <p>In purporting to assess the impacts of the BDCP project and alternatives in relation to the 2060 NEPA baseline, the BDCP Draft EIS/EIR fails to disclose the potential near-term and medium-term impacts of the project. The document therefore fails to disclose what the BDCP's impacts would be in the several decades that follow project approval.</p> <p>For example, the operation of the tidal marsh restoration components of the BDCP would commence within five years after project approval, while operation of the proposed diversion and conveyance facilities would not commence until 11 years after project approval. BDCP, Chap. 6, Tables 6-1 (CM1) and 6-2 (CM4). But the BDCP Draft EIR/EIS contains no analysis of the near-term water quality impacts that marsh restoration could cause due to hydrodynamic changes -- including substantial increases in Delta salinity and mercury, as well as toxic algae -- before the diversion and conveyance facilities are operational. Similarly, the BDCP Draft EIR/EIS contains no analysis of the impacts of the BDCP project and alternatives in the near- and mid-term years when climate-related changes would be less intense than the conditions assumed for 2060. Project impacts could be quite different under nearer-term Delta conditions, but there is no way for the reader to assess these issues.</p> | <p>The commenter faults the DEIR/EIS for not including “near-term and medium-term impacts of the project” but fails to cite any legal authority for the notion that such analyses were required under either CEQA or NEPA. They are not. Although the California Supreme Court, in <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i> (2013) 57 Cal.4th 439, 455, stated that “members of the public are entitled under CEQA to know the short- and medium-term environmental costs” of even environmentally beneficial projects, that statement was made in defense of the utility of using an existing conditions baseline as opposed to only a future baseline. The statement does not require that, even where an EIR uses an existing conditions baseline (as occurred here), the EIR must also include a medium-term scenario. Nothing in the text of CEQA or the CEQA Guidelines supports the need for such an additional scenario, and the court could not require one absent authorization by statute or regulation. In <i>Berkeley Hillside Preservation v. City of Berkeley</i> (2015) 60 Cal.4th 1086, 1107, the California Supreme Court acknowledged the existence of California Public Resources Code section 21083.1, which provides that “courts, consistent with generally accepted rules of statutory interpretation, shall not interpret this division or the state guidelines adopted pursuant to Section 21083 in a manner which imposes procedural or substantive requirements beyond those explicitly stated in [CEQA] or in the state guidelines.” According to the court, “the purpose of this statute was to ‘limit judicial expansion of CEQA requirements’ and to ‘reduce the uncertainty and litigation risks facing local governments and project applicants by providing a ‘safe harbor’ to local entities and developers who comply with the explicit requirements of the law.’” (Id. at p. 1107.) Since no statute or regulation requires a medium-term analysis, such a requirement cannot be imposed by a court. (See also <i>City of Irvine v. County of Orange</i> (2015) 238 Cal.App.4th 526, 543-544 [rejecting the need for a medium-term analysis in an EIR].)</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration. The RDEIR/SDEIS and Final EIR/EIS include analysis of Alternatives 2D, 4A, and 5A and the No Action Alternative at the Early Long-Term time frame.</p> <p>Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis and Master Response 1 related to Baseline analysis.</p> |

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| 1563 | 83 | In purporting to assess the impacts of the BDCP project and alternatives in relation to the 2060 NEPA baseline, the assessment of climate change in the BDCP Draft EIS/EIR is highly uncertain and unreliable. As the California Supreme Court recently warned, "[h]owever sophisticated and well-designed a model is, its product carries the inherent uncertainty of every long-term prediction, uncertainty that tends to increase with the period of projection." <i>Neighbors for Smart Rail</i> , 57 Cal. 4th at 455. Here, the BDCP Draft EIR/EIS admits that sea level rise and climate change might occur differently than what is modeled for its analyses. BDCP Draft EIR/EIS, Chap. 5 at p. 5-49. Including nearer-term analyses would reduce the uncertainties inherent in very long-term predictions. | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>Please see Master Response 19 related to climate change analysis</p> <p>Please see Appendix 5A, Section A, and in Appendix 5A, Section D.3, of the EIR/EIS related to sea level rise.</p> |
| 1563 | 84 | The analysis improperly conflates the effects of the new water conveyance facilities, CM1, with the effects of the habitat restoration actions, for example, under CM4. This approach of simply lumping the impacts together, without any way to differentiate the effects, obscures the adverse water quality and water supply impacts of both CM1 and CM4 as compared to the CEQA and NEPA baselines. Because the BDCP does not actually commit to fully implementing the habitat restoration actions, this analysis is improper. | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> |
| 1563 | 85 | <p>Both the future No Project Alternative under CEQA and the 2060 NEPA baseline, as reflected in the No Action Alternative, improperly exclude the implementation of habitat restoration actions that are required under the currently effective Biological Opinions issued by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that govern the coordinated operations of the CVP and the SWP. These habitat restoration actions are more than reasonably foreseeable if the BDCP does not go forward, since in the absence of project approval, these actions are required to occur. By excluding the habitat restoration actions from the future No Action and No Project scenarios, and by including them in the BDCP project and alternatives, the BDCP Draft EIR/EIS improperly skews the environmental analysis and obscures the impacts of approving and implementing the proposed project.</p> <p>The end result of all of these flaws is that the analysis in the BDCP Draft EIR/EIS is confusing and obfusatory and fails to disclose to the public, the governmental agencies, and the decision-makers the true nature and extent of the environmental impacts of going forward with the proposed project. The BDCP Draft EIR/EIS should be revised to correct these numerous flaws and to provide a clear and complete analysis of the project's impacts.</p> | Please see Master Response 2 regarding the program level analysis, requiring future project-level analysis, Master Response 22 related Mitigation, and Master Response 4 related to alternatives analysis. |
| 1563 | 86 | <p>The CEQA existing conditions baseline scenario improperly excludes important components of the existing environmental setting.</p> <p>There are two problems with how the BDCP Draft EIR/EIS defines the CEQA baseline for purposes of the environmental analysis. First, the February 2009 baseline is outdated and fails to account for current physical conditions, including two important drinking water projects: Contra Costa Water District's (CCWD) Middle River intake, which was approved (as part of the Alternative Intake Project) in 2006 and constructed and put into operation in 2010; and CCWD's expansion of its Los Vaqueros Reservoir, which was approved, constructed and put into operation in the more than five years that have passed since the CEQA notice of preparation was published for the BDCP Draft EIR/EIS. This omission results in the use of an environmental setting that is obsolete as a measuring stick for assessing the significance of the BDCP's water quality impacts. The baseline therefore fails</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance. Therefore, the Existing Conditions do not include the Rock Slough Fish Screen, Los Vaqueros Expansion Project, or Middle River intake. The Middle River intake was included in the No Action Alternative; however, any changes in diversion rates related to the Rock Slough Fish Screen and Los Vaqueros Expansion Project were only considered qualitatively in the No Action Alternative and action alternatives. It should be noted that for the analysis of the effects of action alternatives without the effects of climate change, sea level rise, and increased water demands in the Delta watershed, assumptions related to these facilities would not affect the comparison because they are not included in either the No Action Alternatives or action alternatives.</p> <p>Component 3, Fall X2, in the 2008 USFWS biological opinion, was not included in the Existing Conditions because it had not been planned for or implemented near the time of the publication of the Notice of</p> |

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| | | <p>to fulfill CEQA's fundamental purpose, which is to provide a clear and accurate picture of the project's environmental impacts to the public and the decision-makers.</p> <p>Second, the baseline scenario does not even include important regulatory requirements that were approved and adopted and took effect before the February 2009 CEQA baseline date. In particular, the baseline scenario excludes implementation of the Fall X2 salinity requirement, which was adopted by the U.S. Fish and Wildlife Service in 2008 and imposed on the coordinated operations of the CVP and SWP to limit salinity and protect the endangered delta smelt. This omission further masks the impacts of implementing the BDCP in relation to the existing environmental setting.</p> | <p>Preparation and Notice of Intent. Other operational aspects of the 2008 USFWS and 2009 NMFS biological opinions had been implemented at that time and are included in the Existing Conditions and No Action Alternative. Fall X2 was included in the No Action Alternative assumptions. Some of the action alternatives did not include Fall X2, and instead provided other options to achieve the benefits related to delta smelt.</p> |
| 1563 | 87 | <p>The Middle River Intake Project and the Los Vaqueros Reservoir Expansion Project:</p> <p>The BDCP Draft EIR/EIS uses an outdated CEQA baseline date of February 13, 2009. BDCP Draft EIR/EIS, Ch. 4 at p. 4-4. Thus, the depiction of the existing environmental conditions, the critical yardstick against which the magnitude of the project's impacts are measured, is more than five years and five months old and counting. Many changes have occurred during the prolonged period during which the BDCP project proponents have been attempting to decide what project to propose for approval. For example, Contra Costa Water District had approved an important project that helps to protect Delta drinking water quality before the CEQA baseline date used in the BDCP Draft EIR/EIS, and then, in the more than half-decade that has followed that date, CCWD approved another important project that helps to protect Delta drinking water quality and constructed and commenced operation of both projects. The exclusion of these projects thwarts the fundamental purpose of CEQA's baseline requirement, which is to describe and quantify the project's effects against existing physical conditions, so as to inform the decision-makers and public about the significance of the project's environmental impacts. See <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439, 447 (2013), citing <i>Communities for a Better Environment v. South Coast Air Quality Management District</i>, 48 Cal. 4th 310, 315 (2010).</p> | <p>Please see Master Response 1 regarding Environmental Baselines, Master Response 5 related to status of BDCP, Master Response 14 related to Water Quality.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> |
| 1563 | 88 | <p>The first Contra Costa Water District (CCWD) project that is improperly excluded from the existing conditions baseline is the Middle River Intake Project (formerly known as the Alternative Intake Project). BDCP Draft EIR/EIS, Appendix 3D at p. 3D-66 (noting that while this project was completed in 2010, it is not included in the existing conditions baseline). The environmental review for the Middle River intake was completed more than seven and a half years ago, in November 2006, and the project started operation four years ago, in the summer of 2010. The ongoing operation of this long-planned drinking water project is thus a well-established existing condition that is part of today's physical environment. And the project is an important part of the existing environmental setting, as it benefits Delta fish populations. But the environmental analysis in the BDCP Draft EIR/EIS excludes the project from the baseline, since it did not start operating until after the five-plus-year-old CEQA baseline date -- even though the changes to the environment were known prior to the start of environmental review for the BDCP. By excluding the Middle River intake from the baseline, the BDCP Draft EIR/EIS fails to depict the existing physical conditions and thus fails to disclose the actual changes to those existing conditions that would result from implementation of the BDCP.</p> <p>While the CEQA Guidelines provide that the environmental setting as of the notice of</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance.</p> <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration.</p> <p>Please see Master Response 1 regarding Environmental Baselines, Master Response 5 related to status of BDCP, Master Response 14 related to Water Quality.</p> |

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| | | <p>preparation will normally constitute the baseline, there is nothing in CEQA or the Guidelines that contemplates a period exceeding five years from the notice of preparation to the publication of the draft (let alone final) EIR. There also is nothing in CEQA or the Guidelines that sanctions the use of an old, outdated baseline that fails to depict the actual physical conditions that exist at the time the environmental analysis is conducted.</p> <p>This is not a situation where turmoil and rapid change during the CEQA review make a description of the "existing" conditions a moving target over a period of a year or two following the notice of preparation. See <i>Citizens for Open Government v. City of Lodi</i>, 205 Cal. App. 4th 296, 301-03 (2012) (involving rapidly changing conditions related to blight and urban decay between publication of the Notice of Preparation (NOP) in November 2006 and close of public comment period on the draft EIR in December 2007). To the contrary, planning and environmental review for the Middle River intake was completed in 2006, design was completed in 2007, and construction began in 2008 -- all before the notice of preparation was published for the BDCP Draft EIR/EIS in February 2009. The notion that the Middle River intake is not part of the existing conditions baseline is a fiction.</p> <p>The BDCP Draft EIR/EIS commits a similar error by excluding from the baseline conditions the expanded Los Vaqueros Reservoir. This project, which has increased storage in CCWD's Los Vaqueros Reservoir from 100 thousand acre-feet to 160 thousand acre-feet, was designed to improve water supply reliability and provides an important source of drinking water during droughts and emergencies, as well as providing water quality benefits. Like the Middle River Intake Project, the Los Vaqueros Reservoir Expansion Project has been a known project since long before the environmental review of the BDCP commenced. The CALFED Record of Decision in 2000 included the expansion of Los Vaqueros Reservoir as one of the key water storage projects identified for further study. Extensive studies of the expansion began in 2001, including a project concept report in 2002, a planning report in 2004, an initial alternatives report in 2005, and an initial economic evaluation in 2006. The draft EIR/EIS for the expansion project was published in February 2009 (the same time as the publication of the NOP for the BDCP Draft EIR/EIS) and the environmental review was completed over four years ago, in 2010. CCWD approved the expansion in March 2010 and the Bureau of Reclamation granted its final approval in February 2011. Construction of the expansion began in April 2011 and was completed in March 2012, and the expanded reservoir is currently operational.</p> <p>But as with the Middle River intake, the BDCP Draft EIR/EIS excludes this existing, completed, operational project from the CEQA existing conditions baseline scenario. BDCP Draft EIR/EIS, Appendix 3D at pp. 3D-65 to 3D-66. And as with the Middle River intake, the BDCP Draft EIR/EIS can exclude the Los Vaqueros Reservoir expansion from the existing conditions baseline only by relying on the falsehood that the expansion is merely "proposed" and has not yet been approved or constructed. [Footnote 7: The BDCP Draft EIR/EIS states that the "proposed" Los Vaqueros Reservoir expansion would increase reservoir capacity to 275,000 acre-feet. BDCP Draft EIR/EIS, App. 3D at p. 3D-66. In fact, an expansion to 160,000 acre-feet has been approved, constructed and put into operation.]</p> <p>The decision to exclude these projects from the CEQA baseline is unfounded. Even aside</p> | |

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| | | <p>from the fact that the February 2009 NOP date is almost five and a half years out of date, the actual modeling conducted for the BDCP environmental analysis was still under development in 2011, after the Middle River intake was operational and after the expansion of Los Vaqueros Reservoir was fully evaluated and approved.</p> <p>As the California Supreme Court has instructed, a basic premise underlying CEQA's baseline requirement is that "[t]he public and decision makers are entitled to the most accurate information on project impacts practically possible." <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th. 439, 455 (2013). To provide the most accurate information on the potential environmental impacts of the BDCP to the public and the decision-makers, it is practical and possible for the BDCP Draft EIR/EIS to define the existing conditions baseline to include important, long-planned water projects that already have been approved, constructed, and put into operation. Conversely, the exclusion of these existing, operational projects through the use of a 65 month-old artificially constrained "existing" conditions baseline thwarts rather than advances CEQA's basic purposes.</p> | |
| 1563 | 89 | <p>The Fall X2 salinity standard:</p> <p>The BDCP Draft EIR/EIS further errs by failing to include within the existing environmental baseline an important regulatory standard that was adopted and took effect in 2008, before the February 2009 CEQA baseline date.</p> <p>The BDCP Draft EIR/EIS states that it includes as part of the existing conditions baseline under CEQA the requirements that are specified in the 2008 and 2009 Biological Opinions issued by the U.S. Fish and Wildlife Service and National Marine Fisheries Service, respectively, to protect listed fish species from the effects of the coordinated operations of the CVP and SWP. BDCP Draft EIR/EIS, Ch. 4 at pp. 4-4 to 4-5; Appendix 3D at p. 3D-2. However, the BDCP Draft EIS/EIR goes on to explain that the existing conditions baseline does not include all aspects of the Biological Opinions. In particular, the baseline does not include implementation of the "Fall X2" salinity standard as set forth in the Reasonable and Prudent Alternative (RPA) Component 3 (Action 4) of the 2008 USFWS Biological Opinion. <i>Id.</i> at p. 4-5 and p. 3D-2 (for a description of the Fall X2 standard, see 2008 USFWS Biological Opinion at pp. 282-83, 369-76). The Fall X2 salinity standard, which applies in wet and above normal water years, is designed to improve the quality and quantity of habitat for the endangered delta smelt by increasing Delta outflow during the fall months. The Fall X2 standard concerns the location in the Bay-Delta at which the salinity in the water is less than two parts per thousand and is expressed in terms of the distance in kilometers east of the Golden Gate Bridge. The standard is of critical importance for the environmental analysis of the BDCP, since, as the 2008 USFWS Biological Opinion explains, the operations of the CVP and SWP "control the position of X2 and therefore are a primary driver of delta smelt habitat suitability," and conversely the location of X2 directly affects how much water can be exported by the CVP and SWP from the Delta. 2008 USFWS Biological Opinion at p. 234; see also <i>San Luis & Delta-Mendota Water Authority v. Jewell</i>, 747 F.3d 581, 616-17 (9th Cir. 2014).</p> | <p>Please see Master Response 1 regarding Environmental Baselines. Please see Master Response 1 regarding Environmental Baselines, Master Response 5 related to status of BDCP, Master Response 14 related to Water Quality.</p> <p>As the EIR/EIS explains in Chapter 4, the "existing conditions" baseline reflects conditions as they existed in 2009, when DWR issued the second Notice of Preparation (NOP) for the BDCP. Under CEQA Guidelines section 15125, subdivision (a), existing conditions at the time of the issuance of the NOP are normally the baseline for assessing the significance of impacts under CEQA.</p> |
| 1563 | 90 | <p>The BDCP Draft EIR/EIS states that a recent court decision is one of the two grounds for not including the environmentally protective Fall X2 salinity standard in the existing conditions baseline scenario. The BDCP Draft EIR states that this decision by the U.S.</p> | <p>Please see Master Response 1 regarding Environmental Baselines, Master Response 5 related to status of BDCP, and Master Response 14 related to Water Quality.</p> |

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| | | <p>District Court for the Eastern District of California determined that "the USFWS (U.S. Fish and Wildlife Service) failed to fully explain the specific rationale used to determine the locations for Fall X2 included in the RPA and remanded to the USFWS." Draft BDCP Draft EIR/EIS, Appendix 3D at p. 3D-2; see <i>San Luis & Delta-Mendota Water Authority v. Salazar</i>, 760 F. Supp. 2d 855 (E.D. Cal. 2010). The district court, however, did not issue its decision until December 2010, nearly two years after the CEQA baseline date of February 2009, and even though the district court remanded the Biological Opinion to the USFWS for revision, the court did not vacate the Fall X2 standard in the Biological Opinion, which therefore remained effective as a regulatory requirement. In any event, the United States Court of Appeals for the Ninth Circuit has reversed the district court's ruling that the rationale for imposing the Fall X2 standard is legally inadequate. See <i>San Luis & Delta-Mendota Water Authority v. Jewell</i>, 747 F.3d at 616-17 (9th Cir. 2014). In its decision, the Ninth Circuit held that the 2008 USFWS Biological Opinion, including the Fall X2 standard, complies with the requirements of the Endangered Species Act and the Administrative Procedure Act. Id. at 616-24.</p> <p>In particular, the Ninth Circuit affirmed the finding by the USFWS that the Fall X2 standard is necessary to address the substantial loss of delta smelt habitat that has been caused, and that continues to be caused, by the operations of the CVP and SWP. The Ninth Circuit further found that the USFWS adequately explained its rationale for establishing the specific location for X2 and that the methodology used by the USFWS represented the best scientific data that was available. More broadly, the Ninth Circuit reversed the district court's ruling directing a remand to the USFWS for completion of a revised Biological Opinion. Thus, the primary basis used in the BDCP Draft EIR/EIS for not including the implementation of the Fall X2 salinity standard as part of the existing conditions baseline is legally incorrect.</p> | |
| 1563 | 91 | <p>The other basis used in the BDCP Draft EIR/EIS for not including the Fall X2 salinity standard as part of the existing conditions baseline under CEQA is the summary assertion that DWR determined in the spring of 2011 [Footnote 8: It is noteworthy that the BDCP Draft EIR/EIS relies on events occurring after 2009 as the basis for excluding matters from the baseline scenario, yet artificially constrains the baseline scenario when it comes to including actual projects that not yet been constructed by that date, but have since been completed and are operating.] that implementation of the standard "was not certain to occur within a reasonable near-term time frame" due to "reasonably foreseeable near-term hydrological conditions." BDCP Draft EIR/EIS, Chap. 4 at p. 4-5; Appendix 3D at p. 3D-2. It is not clear to the reader what the specific factual basis is for this determination, which DWR apparently made more than two years after the CEQA baseline date of February 2009. Moreover, 2011 was in fact a wet water year and thus exhibited precisely the kind of "near-term hydrological conditions" to trigger the implementation of the Fall X2 salinity standard. The only reason the standard was not implemented during the fall of 2011 was a district court injunction issued in August 2011, which subsequently was vacated by the Ninth Circuit. See <i>In re Consolidated Delta Smelt Cases</i>, 812 F. Supp. 2d 1133 (E.D. Cal. 2011) (enjoining implementation of the Fall X2 standard in 2011), judgment vacated by <i>San Luis & Delta-Mendota Water Authority v. Salazar</i>, 2012 WL 6929161 (9th Cir. Aug. 23, 2012); see also <i>San Luis & Delta-Mendota Water Authority v. Jewell</i>, 747 F.3d at 645 n.49. Thus, neither of the bases used by the BDCP Draft EIS/EIR to exclude the Fall X2 salinity standard from the existing conditions</p> | <p>See Master Response 1 regarding Environmental Baseline and Master Response 45 related to Biological Opinions/Fall X2. See also Chapter 4 of the EIR/EIS.</p> |

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| | | <p>baseline withstands scrutiny.</p> <p>Further, the Fall X2 standard is of critical importance for the water quality analysis of the BDCP. As that analysis explains, for all of the alternatives, there are two primary factors that can substantially affect water quality within the Delta. One of these factors is that while sea water intrusion resulting from sea level rise or decreased Delta outflow can increase the concentration of salts (bromide, chloride) and levels of electrical conductivity, increased Delta outflow resulting from the implementation of the Fall X2 standard "will decrease levels of these constituents." BDCP Draft EIR/EIS, Chap. 8 at p. 8-408.</p> <p>The BDCP Draft EIR/EIS improperly skews the environmental analysis by excluding implementation of the Fall X2 standard from the existing conditions baseline scenario and then including implementation of that standard within a number of the BDCP alternatives. BDCP Draft EIR/EIS, Chap. 3 at p. 3-33 ("The Fall X2 rule applies to the No Action Alternative and some of the BDCP action alternatives."); Chap. 3, [Section] 3.6.4.2 (pp. 3-181 to 3-209, describing the operational components of the different alternatives); & Chap. 8 at p. 8-175 (Table 8-62) (showing inclusion or exclusion of the Fall X2 standard in the various water quality assessment scenarios). This varying treatment of the Fall X2 standard in the BDCP Draft EIR/EIS has the effect of understating the salinity impacts of a number of the BDCP scenarios in comparison to the actual, existing regulatory baseline, since implementation of the standard causes a decrease in salinity.</p> | |
| 1563 | 92 | <p>The BDCP Draft EIR/EIS inappropriately excludes from the existing conditions baseline scenario the implementation of an environmentally protective regulatory standard that was adopted by the U.S. Fish and Wildlife Service (USFWS) prior to the February 2009 baseline date, that currently remains in effect, and that has been determined by the Ninth Circuit to comply with the Endangered Species Act and to be adequately justified based on the scientific evidence. This exclusion obscures the true salinity impacts of a number of the BDCP scenarios as measured against the environmental baseline, thereby thwarting CEQA's fundamental goal of informing the public and decision-makers about the impacts of the proposed project. The water quality analysis should be revised, with the implementation of the Fall X2 standard included in the CEQA existing conditions baseline scenario.</p> | <p>Please see Master Response 1 for more information regarding Environmental Baselines. Fall X2 is included in the No Action Alternative.</p> |
| 1563 | 93 | <p>The environmental analysis fails to compare the project's impacts against the CEQA existing conditions baseline and instead uses the anticipated effects of other future projects and events to obscure the project impacts.</p> <p>The California Supreme Court recently explained that comparing the impacts of the proposed project against the existing conditions baseline "serves CEQA's goals in important ways." <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439, 455 (2013). The BDCP Draft EIR/EIS purports to use an existing conditions baseline, asserting that this approach serves CEQA's informational purposes and that the environmental analysis accordingly assesses the impacts of the BDCP project and alternatives in comparison to the environmental conditions that existed as of February 13, 2009, the date the CEQA notice of preparation was published. BDCP Draft EIR/EIS, Chap. 4 at p. 4-4; Appendix 3D at pp. 3D-1 to 3D-2. But for a number of key environmental impacts, the BDCP Draft EIR/EIS fails to perform the environmental</p> | <p>See Master Response 1 regarding Environmental Baselines. As the Master Response explains, the EIR/EIS consistently uses a CEQA Existing Conditions baseline and a NEPA No Action Alternative or "point of comparison" consisting of 2060 conditions in the 2013 Draft EIR/EIS and 2025/2030 conditions in the RDEIR/SDEIS and Final EIR/EIS. As authorized by <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i> (2013) 547 Cal.4th 439, 457, the DEIR in many instances takes account of anticipated future conditions in assessing the significance of impacts under CEQA. This approach allowed DWR, as CEQA Lead Agency, to isolate the predicted effects of climate change (sea level rise and changed precipitation patterns) from the predicted effects of the various action alternatives. The Lead Agencies therefore disagree with the commenter's statement that "it is not possible to distinguish the impacts caused by the BDCP in relation to the CEQA baseline from the impacts that would be caused by other projects and expected future changes in conditions."</p> <p>For additional information regarding climate change and GHG, please see Master Response 19.</p> |

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| | | analysis it says it is conducting. Instead of comparing the project's impacts to existing conditions, the BDCP Draft EIR/EIS compares future cumulative conditions to the February 2009 baseline. These future cumulative conditions include the effects of the BDCP, as well as the anticipated effects from various independent projects, actions and conditions that are not part of the BDCP. As a result, it is not possible to distinguish the impacts caused by the BDCP in relation to the CEQA baseline from the impacts that would be caused by other projects and expected future changes in conditions. The BDCP Draft EIR/EIS therefore presents a confusing and inconsistent analysis that obscures the environmental impacts attributable to the approval and implementation of the BDCP. | |
| 1563 | 94 | <p>Water quality impacts due to ammonia: Sacramento Regional Wastewater Treatment Plant:</p> <p>The BDCP Draft EIR/EIS states that, while most study locations in the Delta have low ammonia concentrations under existing conditions, the Sacramento River at Hood is an exception as a result of wastewater effluent discharges into the Sacramento River at Freeport. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-38, 8-143 & Figures 8-9a, 8-52. The BDCP Draft EIR/EIS recognizes that the BDCP has the potential to cause increases in ammonia concentrations by decreasing flows in the Sacramento River, which would reduce the amount of water available to dilute the discharge from the wastewater treatment plant. E.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-227 (Alternative 1); 8-303 (assessment of ammonia impacts of Alternative 2 is similar to the assessment under Alternative 1); 8-358 (assessment of ammonia impacts of Alternative 3 is similar to the assessment under Alternative 1); 8-409 (Alternative 4); 8-492 (assessment of ammonia impacts of Alternative 5 is similar to the assessment under Alternative 1); 8-543 (assessment of ammonia impacts of Alternative 6 is similar to the assessment under Alternative 1); 8-599 (assessment of ammonia impacts of Alternative 7 is similar to the assessment under Alternative 1); 8-650 (assessment of ammonia impacts of Alternative 8 is similar to the assessment under Alternative 1); 8-702 (assessment of ammonia impacts of Alternative 9 is similar to the assessment under Alternative 1).</p> <p>But in purporting to evaluate the water quality impacts of the BDCP, the BDCP Draft EIR/EIS reaches the opposite conclusion -- that ammonia concentrations under "with project" conditions would be less than under existing conditions. This conclusion is based on the assumption that the Sacramento Regional Wastewater Treatment Plant will be upgraded in the future to lower its ammonia discharge into the Sacramento River. BDCP Draft EIR/EIS, Chap 8 at pp. 8-229 (Alternative 1); 8-305 (Alternative 2); 8-359 (Alternative 3); 8-411 (Alternative 4); 8-493 (Alternative 5); 8-544 (Alternative 6); 8-600 (Alternative 7); 8-652 (Alternative 8); 8-703 (Alternative 9). Thus, the modeling for the BDCP includes the water quality benefits from the future upgrade by Sacramento Regional County Sanitation District of its wastewater treatment plant in the action alternative scenarios -- which cancels out the adverse impacts from implementing the BDCP. In other words, the BDCP Draft EIR/EIR uses another possible future project to obscure the effects that the BDCP itself would have on ammonia levels. This is an improper analysis.</p> <p>The BDCP recognizes the potential for ammonia to create adverse effects on the Delta ecosystem, including "potential toxicity to fish and other organisms, shifts in algal community structure (e.g., dominant species), and inhibition of nitrate uptake by diatoms." BDCP Draft EIR/EIS, Chap. 8 at p. 8-35. The BDCP would make ammonia</p> | <p>The Sacramento County Regional Sanitation District (SRCSD) is currently required to reduce ammonia concentrations in its discharge to comply with NPDES permit discharge requirements. SRCSD has certified an EIR for its EchoWater project, a component of which is nitrification of wastewater to reduce ammonia concentrations. SRCSD has initiated construction of the wastewater treatment facilities to reduce ammonia concentrations which will be operational prior to implementation of the Proposed Project. Therefore, inclusion of the new wastewater treatment facilities are included in the No Action Alternative and all action alternatives in the EIR/EIS. Please see Master Response 14 regarding the water quality analysis.</p> |

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| | | <p>concentrations in the Sacramento River worse than they otherwise would be without the project. In accordance with its stated use of an existing conditions baseline under CEQA, the BDCP Draft EIR/EIS needs to evaluate how flows in the Sacramento River resulting from the BDCP could affect existing ammonia levels and the resulting water quality problems. But the BDCP Draft EIR/EIS sidesteps this evaluation, and instead relies on an assumed set of future conditions that includes a separate project, thus obscuring the BDCP's adverse water quality impacts.</p> <p>Where, as here, the lead agency purports to follow the practice of using existing conditions to define the CEQA baseline, the project's impacts must be compared against the existing environmental setting. Future conditions are appropriately considered as part of the assessment of cumulative impacts and the no project alternative. See <i>Neighbors for Smart Rail</i>, 57 Cal. 4th at 454 & n.6. By including the anticipated future upgrade of the Sacramento Regional Wastewater Treatment Plant as part of the impacts of the BDCP as measured against the existing conditions baseline, the BDCP Draft EIR/EIS conceals the true nature and magnitude of those impacts, thereby violating CEQA.</p> | |
| 1563 | 95 | <p>Water quality impacts due to selenium: Grassland Bypass Project and similar regulatory programs:</p> <p>The same flaw that infects the analysis of ammonia impacts applies with equal force to the evaluation of the project's effects on selenium concentrations. Instead of assessing the effects of implementing the BDCP in relation to existing selenium conditions, the BDCP Draft EIR/EIS relies on a set of possible future conditions, which might result from other possible independent projects and actions that are not part of the BDCP, to mask the effects of the BDCP.</p> <p>The BDCP Draft EIR/EIS notes that while nonpoint agricultural sources in the San Joaquin Valley have caused water quality problems due to selenium, those nonpoint sources "will be controlled" by regulatory programs such as the Grassland Bypass Project "that are expected to result in decreasing discharges of selenium from the San Joaquin River to the Delta." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-284 to 8-285 (Alternative 1); 8-345 (Alternative 2); 8-400 (Alternative 3); 8-475 (Alternative 4); 8-534 (Alternative 5); 8-585 (Alternative 6); 8-641 (Alternative 7); 8-692 (Alternative 8); 8-745 (Alternative 9). Based on this expectation that selenium discharges from nonpoint agricultural sources would decrease in the future, the BDCP Draft EIR/EIS concludes: "Consequently, any modified reservoir operations and subsequent changes in river flows under [the BDCP scenarios], relative to Existing Conditions, are expected to cause negligible changes in selenium concentrations in water." Id. And based on this conclusion, the BDCP Draft EIR/EIS asserts that the selenium concentrations that would occur under the BDCP scenarios would not, in comparison to the existing conditions baseline, adversely affect beneficial uses, degrade water quality, or impact the health of aquatic organisms. Id.</p> <p>Here, as with the analysis of ammonia impacts, the BDCP Draft EIR/EIS improperly relies on expected future programs and actions that are not part of the BDCP in order to mask the potential water quality impacts that are attributable to implementing the BDCP. It is well-documented that selenium is a constituent of concern in the Bay-Delta and in the lower San Joaquin River (see e.g. Linville et al., 2002; Presser and Luoma, 2013 at pp. 2-4). Selenium is highly bioaccumulative under certain ecological conditions and can cause serious reproductive problems in fish and wildlife. The BDCP would increase the</p> | <p>As described in Appendix 3D of the EIR/EIS, only partial implementation of the Grasslands Bypass drainage water treatment project is included in the Existing Conditions assumptions, consistent with actions that were implemented as of 2009 when the Notice of Preparation and Notice of Intent were published. Full implementation is included in the No Action Alternative and all action alternatives because this project is under construction and is scheduled to be completed in the early 2020s, or prior to both the Early Long-Term and Late Long-Term timeline scenarios considered in the EIR/EIS. Grasslands Bypass drainage water treatment project is included in the No Action Alternative and all action alternatives in the EIR/EIS. Please refer to Master Response 14 for more information regarding water quality.</p> |

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| | | <p>bioaccumulation of selenium by increasing the residence time in the south Delta. By assuming that the Grassland Bypass Project is fully implemented, the BDCP Draft EIR/EIS underestimates the concentration of selenium in the water column and thus underestimates the impacts of the project alternatives. The analysis of selenium impacts needs to be revised to evaluate the effect that implementing the BDCP would have on existing selenium conditions. The CEQA impact analyses and findings should not rely on other possible future projects to offset the selenium impacts that would be caused by the BDCP.</p> <p>Additionally, there is significant uncertainty regarding the implementation and effectiveness of the Grassland Bypass Project. The scientific information raises significant questions as to whether the existing regulatory requirements for selenium are adequately protective of the environment, as the current standards lack criteria specific to water-dependent wildlife, do not account systematically for differences in the physical and chemical characteristics of affected water bodies and use a measure (water column concentration) that is not a consistent indicator of exposure and environmental risk because it fails to account for variables such as food web characteristics (e.g. USEPA, 2011 at pp. 30-35). While the Grassland Bypass Project has achieved important water quality benefits to date, full compliance with the applicable water quality standards has taken much longer than originally planned, even with a substantial compliance extension from the prior October 2010 deadline until the year 2019. Achieving the goals of the Grassland Bypass Project "may require as-yet unproven treatment technologies or substantial reduction in irrigation" (Id. at pp. 34-35 and USEPA, 2012, Appendix I at pp. 4-5). In other words, the effectiveness of future actions to implement the Grassland Bypass Project is uncertain.</p> <p>In assessing the impacts of the BDCP in relation to the existing conditions baseline under CEQA, the BDCP Draft EIR/EIS may not rely on the assumed selenium reductions that may (or may not) be achieved by future actions under the Grassland Bypass Project. The BDCP Draft EIR/EIS needs to reveal the impacts against the CEQA baseline that would be caused by the BDCP itself. The CEQA analysis is flawed and needs to be revised.</p> | |
| 1563 | 96 | <p>Climate change analysis:</p> <p>The use of assumed future climate conditions in the BDCP Draft EIR/EIS also obscures the effects of implementing the BDCP in relation to the existing conditions baseline.</p> <p>The impact analyses in the BDCP Draft EIR/EIS for water quality, fish and aquatic resources, and other environmental resources are based on modeled future water supply conditions under each BDCP alternative for the "late long-term" scenario. BDCP Draft EIR/EIS, Chap. 5 at pp. 5-46 to 5-49. The late long-term scenario represents estimated water conditions in the year 2060, including sea level rise and the other effects of climate change assumed to exist in that year. The modeling for the late long-term project action alternatives scenarios in 2060 is then compared to water conditions under the 2009 CEQA baseline scenario, which do not include future climate change effects.</p> <p>The result of this evaluation is that the environmental impacts as measured against the baseline are caused by both climate change, including sea level rise, and implementation of the alternative that is being studied. BDCP Draft EIR/EIS, Chap. 5 at p. 5-49. But as the</p> | <p>The approach for CEQA and NEPA baselines is fully disclosed in Chapter 4 of the EIR/EIS. This discussion indicates that for some impacts that rely on CALSIM II and DSM2 modeling results comparison of the action alternatives (with climate change and sea-level rise assumptions) with Existing Conditions (without climate change and sea-level rise assumptions) can result in impacts that report the combined effect of the action alternative and climate change/sea level rise. In these cases, the EIR/EIS fully discloses that reference to the NEPA analyses which include a No Action Alternative with climate change and sea-level rise assumption compared against an action alternative with climate change and sea level rise assumptions was used to judge the effect of the action alternative alone, and determine the need and the manner of appropriate CEQA mitigation measures. This approach is also discussed in Chapter 5 and Chapter 11 in the EIR/EIS. Please refer also to Master Response 1, addressing the approach to CEQA and NEPA baselines. Changes due to sea level rise and climate change are not caused by the Project, and no mitigation measures are provided. For additional information regarding climate change and GHG, please see Master Response 19.</p> |

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| | | <p>BDCP Draft EIR/EIS acknowledges, under this approach:</p> <p>"It is not possible to specifically define the exact extent of the changes due to implementation of the alternative Thus, the precise contributions of sea level rise and climate change to the total differences between Existing Conditions and LLT [late long-term] conditions under each alternative cannot be isolated."</p> <p>Id. at p. 5-49; see also id., Chap. 8 at pp. 8-5 (explaining that the water quality impact analysis under CEQA is based on a comparison of 2009 baseline and the BDCP alternatives at 2060; as a result, the differences in water quality modeling between the baseline and the alternatives "are due primarily to both the impacts of [the] proposed alternative as well as future climate change conditions"); & 8-175, Table 8-63 (CEQA comparison to 2009 baseline shows effects not only of BDCP project and alternatives "but also the effects of future surface water demands and climate change/sea level rise").</p> <p>In other words, the BDCP Draft EIS/EIR admittedly fails to disclose the project-specific impacts of implementing the BDCP alternatives as compared to the CEQA baseline. Instead, the environmental analysis lumps the project's impacts into an undifferentiated grouping of effects that are attributable, to a varying and undefined degree, to causes other than the BDCP. And the BDCP Draft EIR/EIS uses this larger grouping of effects to hide, and dismiss the importance of, the project-specific impacts attributable to the BDCP.</p> <p>For example, the BDCP Draft EIR/EIS states: "In general, the incremental differences in SWP/CVP water supply conditions under the No Action Alternative due to sea level rise and climate change are similar or greater than the differences in SWP/CVP water supply conditions under the alternatives due to changes in proposed operational scenarios." BDCP Draft EIR/EIS, Chap. 5 at p. 5-48. Based on this premise, the document states that under CEQA:</p> <p>"[T]he absence of sea level rise and climate change in Existing Conditions results in model-generated impact conclusions that include the impacts of sea level rise and climate change with the effects of the action alternatives. As a consequence, the CEQA conclusions in many instances either overstate the effects of the action alternatives or suggest significant effects that are largely attributable to sea level rise and climate change, and not to the action alternatives."</p> <p>Id. at p. 5-49. This approach, according to the BDCP Draft EIR/EIS, "has the effect of highlighting the substantial nature of the consequences of sea level rise and climate change on California's water system." Id. But under this approach, the reader does not really know what the impacts of the BDCP would be in relation to the CEQA baseline. And without knowing what the project's impacts are in comparison to the CEQA baseline, it is impossible to identify what the feasible mitigation should be to address those impacts or to determine whether the mitigation would reduce the impacts to a less-than-significant level. In fact, the BDCP proponents assert they are not obligated to contribute at all to mitigation for any significant effects that are caused "substantially" by climate change. BDCP Draft EIR/EIS, Appendix 3B at p. 3B-43. By amalgamating the impacts as is done in the BDCP Draft EIR/EIR, the proponents are attempting to avoid mitigating for significant effects of the BDCP.</p> | |

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| 1563 | 97 | <p>In accordance with the California Supreme Court's decision in <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439 (2013), the BDCP Draft EIR/EIS should use a baseline approach that compares the project's impacts to either the existing conditions or the conditions projected to occur on the date that operation of the project will commence -- without including other future changes to the physical environment. And under either approach, as explained more fully below, the impact analysis should be repeated at each time increment when a component of the BDCP is added, so that the project's near-term and mid-term environmental effects are fully revealed at each stage of project operation.</p> | <p>This comment refers to the analysis in the 2013 Draft EIR/EIS which considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP. Alternatives 2D, 4A, and 5A do not include an HCP component and will be analyzed under ESA through Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline.</p> |
| 1563 | 98 | <p>The BDCP Draft EIR/EIS fails to disclose the project's short-term and medium-term environmental impacts.</p> <p>The CEQA analysis in the BDCP Draft EIR/EIS "frequently point[s] the reader" to the environmental baseline and resulting analysis prepared for NEPA purposes -- which compares the future No Action scenario as of the year 2060 to the BDCP action alternatives as of the year 2060. BDCP Draft EIR/EIS, Chap. 4 at p. 4-6. According to the BDCP Draft EIR/EIS, the NEPA analysis helps to provide an "apples to apples" comparison, since the No Action scenario and the BDCP action alternatives all include the future effects of climate change and sea level rise. Id. The BDCP Draft EIR/EIS states: "Thus, although the CEQA analysis relies on Existing Conditions as a baseline, the CEQA analysis often points to the NEPA analysis as a way of helping readers to better understand the actual impacts of alternatives vis-à-vis Existing Conditions." Id.</p> <p>But the BDCP Draft EIR/EIS cannot prop up its fatally flawed CEQA analysis by "pointing" to the NEPA analysis. The CEQA analysis is flawed precisely because it is not an apples to apples comparison, in that the future effects of climate change and sea level rise that are included in the BDCP action alternatives serve to mask the impacts that are attributable to the implementation of the BDCP. The NEPA analysis does not cure this deficiency, since the analysis is so far out in the future that it fails to disclose the project's short- and medium-term impacts.</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 considered, the Lead Agencies must comply with the necessary state and federal environmental review requirements. 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).</p> <p>The approach for CEQA and NEPA baselines is set out in Chapter 4 of the EIR/EIS. This discussion indicates that for some impacts that rely on CALSIM II and DSM2 modeling results comparison of the action alternatives (with climate change and sea-level rise assumptions) with Existing Conditions (without climate change and sea-level rise assumptions) can result in impacts that report the combined effect of the action alternative and climate change/sea level rise. In these cases, the EIR/EIS fully discloses that reference to the NEPA analyses which include a No Action Alternative with climate change and sea-level rise assumption compared against an action alternative with climate change and sea level rise assumptions was used to judge the effect of the action alternative alone, and determine the need and the manner of appropriate CEQA mitigation measures. This approach is also discussed in Chapter 5 and Chapter 11 in the EIR/EIS. Please refer also to Master Response 1, addressing the approach to CEQA and NEPA baselines.</p> |
| 1563 | 99 | <p>The CEQA Guidelines specify that the direct and indirect environmental effects of a proposed project "shall be clearly identified and described, giving due consideration to both the short-term and long-term effects." CEQA Guidelines [Section] 15126.2. As the California Supreme Court has explained, this is one of the reasons that using an existing conditions baseline serves to advance CEQA's fundamental goal of informed decision-making and public participation, since the "decision makers and members of the public are entitled under CEQA to know the short- and medium-term environmental costs" of a project, which include the impacts "the project will create during its initial years of operation." <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439, 455 (2013). Put another way, making an informed decision about a project's long-term benefits as compared with its near-term environmental hardships "requires some knowledge about the severity and duration of the near-term hardships." Id.</p> <p>The BDCP Draft EIR/EIS pays lip service to these principles, quoting the Supreme Court's warning that: "An EIR stating that in 20 or 30 years the project will improve the environment, but neglecting, without justification, to provide any evaluation of the</p> | <p>This comment refers to the analysis in the 2013 Draft EIR/EIS which considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP. Alternatives 2D, 4A, and 5A do not include an HCP component and will be analyzed under ESA through Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline.</p> |

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| | | <p>project's impacts in the meantime does not 'giv[e] due consideration to both the short-term and long-term effects' of the project . . . and does not serve CEQA's informational purpose well." BDCP Draft EIS/EIR, Chap. 4 at p. 4-4 & Appendix 3D at p. 3D-2 (quoting Neighbors for Smart Rail, 57 Cal. 4th at 455). But the BDCP Draft EIR/EIS fails to heed this warning.</p> <p>By modeling the environmental effects of the different alternatives (action vs. no action) in the year 2060 -- and by not presenting an analysis of the effects that would occur in prior years -- the BDCP Draft EIR/EIS skips an entire generation of impacts following project approval and initial implementation.</p> | |
| 1563 | 100 | <p>As the BDCP proponents point out, operation of the proposed diversion and conveyance facilities (CM1) is projected to begin 11 years after project approval, while the operation of many other project components is projected to begin much earlier than that. BDCP, Chap. 6, Tables 6-1 and 6-2 at pp. 6-3 to 6-6. For example, the tidal restoration activities under CM4 are scheduled to begin operation within five years after project approval. Id., Table 6-2 at p. 6-5.</p> <p>But it is not at all clear what the project's water quality and other environmental consequences would be in the many years that precede 2060 -- such as in 2020, 2030, 2040, or 2050. For instance, the BDCP Draft EIR/EIS acknowledges that the tidal habitat restoration activities under CM4 could affect Delta hydrodynamics, affect the mixing of source waters, and increase the volume of tidal water exchange in the Delta -- thereby increasing levels of bromide, chloride, and electrical conductivity in Delta waters. E.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-416 to 8-422 (bromide); 8-423 to 8-431 (chloride); and 8-436 to 8-442 (electrical conductivity). [Footnote 9: In addition, habitat restoration actions under CM4 could increase water residence times and the accumulation of sediments, thereby causing significant impacts from mercury. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-446 to 8-447. Habitat restoration also could lead to new substantial sources of dissolved organic carbon. Id. at pp. 8-456 to 8-458. Further, habitat restoration could create a significant impact by exposing water to pesticide residues. Id. at pp. 8-467 to 8-468. Moreover, tidal habitat restoration activities also could cause adverse water quality impacts resulting from toxic algae.]</p> <p>Since the operation of the habitat restoration activities would begin before the diversion and conveyance facilities are operational, the adverse water quality impacts from the restoration activities may occur before, and for a decade-long period independently from, the adverse water quality impacts of the new facilities. But confining the environmental analysis to the year 2060, especially with respect to the water quality impacts from the BDCP caused by hydrodynamic changes, makes it impossible for the reader to assess the impacts that the BDCP would cause "during its initial years of operation." Neighbors for Smart Rail, 57 Cal. 4th at 455.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. The 2013 Draft EIR/EIS considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include an HCP component and large-scale habitat restoration. The Proposed Project includes minimal habitat restoration as necessary to mitigate significant environmental effects and satisfy applicable CWA, ESA and CESA standards, including Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline.</p> <p>Restoration actions that are independent of Proposed Action, such as EcoRestore and California Water Action Plan which include many of the actions considered in the 2013 Draft EIR/EIS as Conservation Measures 2 through 21, will be evaluated in separate engineering and environmental documentation and are evaluated in the Final EIR/EIS as part of the cumulative impact analysis.</p> <p>Please see Chapter 8 of the EIR/EIS and Master Response 14 for a discussion of impacts on water quality under the alternatives as compared to the Existing Conditions and No Action Alternative.</p> |
| 1563 | 101 | <p>By failing to present a near- or mid-term environmental analysis, the BDCP Draft EIR/EIS also does not disclose what the impacts of the project would be under pre-2060 climate conditions. It is quite possible that the project's impacts would be very different before 2060 than what is presented in the BDCP Draft EIR/EIS. Indeed, the technical staff that conducted the climate change modeling seem to have recognized this fact, since an appendix to the BDCP Draft EIR/EIS indicates that the impacts of the BDCP were modeled</p> | <p>The EIR/EIS evaluates the effects of climate change and sea level rise under the No Action Alternative and the Existing Conditions to describe the effects without the action alternatives. The EIR/EIS also evaluates the effects of climate change and sea level rise with the action alternatives through a comparison of conditions under the No Action Alternative and all action alternatives with the Existing Conditions.</p> <p>This comment refers to the analysis in the 2013 Draft EIR/EIS which considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was</p> |

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| | | at three timelines: 2015, 2025, and 2060, with future climate change scenarios and sea level estimates incorporated into the latter two time periods. BDCP Draft EIR/EIS, Appendix 5A at pp. 5A-A63 to 5A-A64 and 5A-D5. Given that at least some of the project's near-term and mid-term impacts apparently have been modeled, it is not clear why the BDCP Draft EIR/EIS does not include the corresponding impact analyses and findings. | being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP. Alternatives 2D, 4A, and 5A do not include an HCP component and will be analyzed under ESA through Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline. |
| 1563 | 102 | <p>In any case, under well-established law, Neighbors for Smart Rail, the BDCP Draft EIR/EIS must include an assessment of the project's short-term impacts, which includes the impacts "the project will create during its initial years of operation." See 57 Cal. 4th at 455; see also CEQA Guidelines [Section] 15126.2(a) (the project's direct and indirect significant impacts "shall be clearly identified and described, giving due consideration to both the short-term and long-term effects"). The public and the decision-makers also are entitled to know what the project's "medium-term" environmental impacts would be. See 57 Cal. 4th at 455. For this complex and multi-faceted project, the BDCP Draft EIR/EIS should provide the public and the decision-makers with sufficient information to assess the project's medium-term impacts at each stage when a component of the project is added.</p> <p>In light of the failure to provide this type of impact assessment, the BDCP Draft EIR/EIS utterly fails to inform the decision-makers and the public about the project's potential effects over the short- and medium-term. As a result, the evaluation "does not serve CEQA's informational purpose well." Neighbors for Smart Rail, 57 Cal. 4th at 455.</p> <p>In addition to violating CEQA's core informational goals, pushing the environmental impact analysis out to the year 2060, without an evaluation of the intervening years, also fails to comply with NEPA. The regulations adopted by the Council on Environmental Quality to implement NEPA make clear that, in assessing the significance of an environmental impact, "[b]oth short- and long-term effects are relevant." 40 C.F.R. [Section] 1508.27(a). This same instruction is included in the policies and procedures adopted by the National Marine Fisheries Service to implement NEPA. NOAA Administrative Order Series 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act (May 20, 1999), [Paragraph] 4.01x (meaning of "significant" is a function of the short-term, long-term, and cumulative impacts on the environment) & [Paragraph] 6.01b (in assessing whether an impact is significant, "[b]oth short- and long-term effects are relevant").</p> <p>Here, the BDCP Draft EIR/EIS does not adequately disclose and analyze the adverse water quality and other environmental consequences that could occur for almost half a century before 2060, following the initial commencement of project implementation. The environmental analysis thus fails to provide the requisite evaluation of the project's short-term and medium-term impacts, contravening both CEQA and NEPA.</p> | <p>This comment refers to the analysis in the 2013 Draft EIR/EIS which considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP. Alternatives 2D, 4A, and 5A do not include an HCP component and will be analyzed under ESA through Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline and Master Response 14 related to Water Quality.</p> |
| 1563 | 103 | <p>By solely relying on an analysis of impacts in the year 2060, the BDCP Draft EIR/EIS provides an assessment that is highly uncertain and unreliable.</p> <p>The use of a far future 2060 baseline under NEPA creates another problem: the assumptions used for the evaluation of climate change render the environmental impact</p> | This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. The 2013 Draft EIR/EIS considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative. |

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| | | <p>analyses that depend on those assumptions (including water quality, fish and aquatic resources, etc.) highly uncertain and unreliable.</p> <p>The California Supreme Court has warned against the dangers of using a baseline that is far out into the future, stating that "[h]owever sophisticated and well-designed a model is, its product carries the inherent uncertainty of every long-term prediction, uncertainty that tends to increase with the period of projection." <i>Neighbors for Smart Rail v. Exposition Metro Line Construction Authority</i>, 57 Cal. 4th 439, 455 (2013). The Court instructed: "The public and decision makers are entitled to the most accurate information on project impacts practically possible, and the choice of a baseline must reflect that goal." <i>Id.</i> The Court therefore cautioned that a baseline grounded in a hypothetical far distant future threatens to create unwarranted barriers to public understanding and informed governmental decision-making. <i>Id.</i> at 455-56.</p> | <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include an HCP component and large-scale habitat restoration. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline.</p> <p>The No Action Alternative and action alternatives include the same climate change and sea level rise assumptions. Therefore, the effects of implementation of the action alternatives solely can be determined through the comparison with the No Action Alternative. This approach is appropriate because the action alternatives would not be implemented until 2030 at which time climate change and sea level rise are anticipated to be different than under the Existing Conditions.</p> <p>Please refer to Master Response 1 regarding the environmental baseline.</p> |
| 1563 | 104 | <p>Indeed, the BDCP Draft EIR/EIS concedes that the approach it used to predict the project's environmental impacts in 2060 reflects "a large degree of speculation." BDCP Draft EIR/EIS, Chap. 5 at p. 5-49. In particular, the BDCP Draft EIR/EIS explains:</p> <p>"If sea level rise and climate change do not occur or occur differently than modeled for these analyses, water supply conditions under the alternatives will be different from the results presented in this section [Chapter 5, Water Supply]. Time will tell whether current predictions of conditions in 2060, though based on the best science currently available, will prove to be too optimistic or too pessimistic."</p> <p><i>Id.</i> Instead of relying exclusively on a 2060 no action baseline under NEPA, the BDCP Draft EIR/EIS could have attempted to reduce this significant uncertainty by evaluating the impacts of the BDCP "during its initial years of operation." <i>Neighbors for Smart Rail</i>, 57 Cal. 4th at 455 (2013).</p> <p>The BDCP Draft EIR/EIS also could have attempted to bracket the acknowledged uncertainty by conducting a sensitivity analysis that evaluated how different climate change inputs and assumptions would affect the modeled water quality and other impacts of the BDCP scenarios. Indeed, the modeling appendix to the BDCP Draft EIR/EIS seems to recognize the benefits of such an approach, noting that a climate change technical subgroup review led to the following determination: "The issues of multi-decadal variability of any one GCM [global climate model] projection and the superiority of multi-model projections over any one single projection were emphasized by the group members." BDCP Draft EIR/EIS, Appendix 5A at p. 5A-A62. As a result, the technical subgroup recommended that the climate change analysis "[s]elect a range of scenarios to reflect the uncertainty with GCM projections and emission scenarios" and "[s]elect scenarios that reduce the 'noise' inherent with any particular GCM projection due to multi-decadal variability." <i>Id.</i> In accordance with these recommendations, the modeling appendix lays out a range of five graphic projections to account for different possibilities in terms of future changes in temperature and precipitation: (1) drier, less warming; (2) drier, more warming; (3) wetter, more warming; (4) wetter, less warming; and (5) a projection that lies in the middle of the previous four. <i>Id.</i> at p. 5A-A65.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. The 2013 Draft EIR/EIS considered conditions under the action alternatives and No Action Alternative at Late Long-Term conditions (Year 2060) because the BDCP was being evaluated as a 50-year HCP. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include an HCP component and large-scale habitat restoration. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational. Please refer to Master Response 1 regarding the environmental baseline.</p> <p>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 action alternatives, the incremental changes would be similar under a range of climate change scenarios. Therefore, only the centroid assumptions were analyzed. It is recognized that the differences between the action alternatives and Existing Conditions would change with different climate change assumptions.</p> |

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| | | <p>But the environmental impact analysis in the BDCP Draft EIR/EIS does not address or evaluate this variability. For example, the depictions of the estimated changes in Delta outflow, reservoir storage, Delta exports, and water deliveries resulting from the implementation of the BDCP scenarios -- which serve as the basis for evaluating the project's water quality and other environmental impacts -- give no hint of the variable climate change conditions that could exist in 2060. BDCP Draft EIR/EIS, Chap. 5, Figures 5-3 to 5-5 (Delta outflow); Figures 5-6 to 5-16 (reservoir storage); Figures 5-17 to 5-29 (Delta exports); Figures 5-30 to 5-36 (water deliveries). Instead, the BDCP Draft EIR/EIS states merely that if the effects of climate change in 2060 happen to be different than the assumptions used to predict the future changes in water conditions resulting from the BDCP, then the project's environmental impacts will be different than what is presented in the EIR/EIS. In short, the BDCP Draft EIR/EIS acknowledges that the assumptions it uses for 2060 are highly uncertain, but it abandons the task of reducing that uncertainty.</p> <p>The BDCP Draft EIR/EIS makes the dubious claim that its use of a NEPA baseline that is more than 45 years out in the future helps to provide the public with a better understanding of the project's impacts. In fact, the approach used in the BDCP Draft EIR/EIS serves only to add further confusion and uncertainty to the environmental analysis.</p> | |
| 1563 | 105 | <p>The conflation of the impacts of Conservation Measure 1 (CM1) and habitat restoration prevents the BDCP Draft EIR/EIS from disclosing and evaluating the full range of potential environmental impacts.</p> <p>The BDCP Draft EIR/EIS is intended to provide project-level assessment of Conservation Measure 1 (CM1), the proposed new water conveyance facilities, including project-specific mitigation. It also is intended to provide a programmatic assessment of CM 2 through 22.</p> <p>However, the environmental analysis in the BDCP Draft EIR/EIS does not distinguish the effects of CM1 from the effects of CM2 (modification of the Fremont Weir and Yolo Bypass) and CM4 (restoration of tidal wetlands). The water quality impacts analysis for CM1 is based upon modeling that includes CM2 and CM4 in addition to CM1. This is problematic for two principal reasons. First, in some cases, there are beneficial effects from habitat restoration projects that mask the adverse impacts of CM1, which are supposed to be detailed and mitigated at a project level. Second, the range of habitat restoration effects on water supply and water quality is not disclosed, evaluated or mitigated.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. It also should be noted that in the 2015 RDEIR/SDEIS and Final EIR/EIS, both Suisun Marsh and Yolo Bypass habitat restoration under the 2008 USFWS and 2009 NMFS biological opinions were included in the No Action Alternative analyses, including use of the operable gate at the Fremont weir to increase the frequency and extent of inundation. Separate engineering and environmental studies are still being developed; therefore consistent assumptions are included in a consistent manner in the No Action Alternative and Alternatives 2D, 4A, and 5A.</p> <p>Please see Master Response 5 related to the status of the BDCP and Master Response 4 related to analysis of Alternative 4A. Please see Master Response 2 regarding applying a project-level analysis for CM1 and a program-level analysis for the remaining Conservation Measures.</p> |
| 1563 | 106 | <p>Failure to disclose impacts of Conservation Measure 1 (CM1):</p> <p>Regarding the impacts of CM1, the BDCP Draft EIR/EIS states: "[m]odeling scenarios included assumptions regarding how certain habitat restoration activities (CM2 and CM4) would affect Delta hydrodynamics. To the extent that restoration actions alter hydrodynamics within the Delta region, which affects mixing of source waters, these effects are included in this assessment of operations-related water quality changes (i.e., CM1)." The BDCP Draft EIR/EIS repeats this statement throughout the water quality analysis. E.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-416, 8-423 to 8-424, 8-436, 8-443, 8-448, etc. The rationale for this approach is as follows: "Operations-related water quality changes (i.e., CM1 under the BDCP Alternatives) would be partly driven by geographic and</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. In the 2015 RDEIR/SDEIS and Final EIR/EIS, both Suisun Marsh and Yolo Bypass habitat restoration under the 2008 USFWS and 2009 NMFS biological opinions were included in the No Action Alternative analyses, including use of the operable gate at the Fremont weir to increase the frequency and extent of inundation. Separate engineering and environmental studies are still being developed; therefore consistent assumptions are included in a consistent manner in the No Action Alternative and Alternatives 2D, 4A, and 5A. The effects of implementing habitat restoration in the Yolo Bypass are included in the comparison of the No Action</p> |

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| | | <p>hydrodynamic changes resulting from restoration actions (i.e., altered hydrodynamics attributable to new areas of tidal wetlands (CM4), for example). There is no way to disentangle the hydrodynamic effects of CM4 and other restoration measures from CM1, since the Delta as a whole is modeled with both CM1 and the other conservation measures implemented." Id. at p. 8-4 (emphasis added). But the effects can be disentangled, and should be disentangled, simply by modeling CM1 distinct from CM2 and CM4.</p> <p>Combining the analysis of CM1 with the analysis of CM2 and CM4 prevents identification of the distinct impacts associated with the operation of CM1. Since the project proponents are responsible for all mitigation for CM1 (BDCP, Chap. 8 at p. 8-73), the full impacts of CM1 must be identified and feasible mitigation included in the BDCP Draft EIR/EIS. To the extent that habitat restoration actions under CM2 or CM4 alter hydrodynamics and affect water quality in a way that offsets the operational impacts of CM1, those portions of the habitat restoration should be properly classified as mitigation measures for CM1, and the funding must be provided by the project proponents of CM1 to ensure that the mitigation is constructed and operational before the impacts due to operation of CM1 occur. Further, the BDCP project proponents have not committed to fully implement the habitat restoration actions. Accordingly, the BDCP Draft EIR/EIS cannot assume those actions will offset the impacts of CM1. The BDCP Draft EIR/EIS must disclose the impacts of CM1 separate from the impacts of habitat restoration, and then also provide the combined effects of all of the BDCP project components.</p> | Alternative and Existing Conditions in the Final EIR/EIS. |
| 1563 | 107 | <p>Two examples of cases where the approach of combining the analysis for CM1 with CM4 hides the full impacts of CM1 are provided below; other cases may become apparent when the analysis is redone properly.</p> <p>First, most of the BDCP alternatives, including the DWR Preferred Alternative (Alternative 4), would reduce Delta outflow and would include relaxation of a western Delta salinity objective, thereby increasing salinity in the western Delta. Yet the configuration of tidal habitat assumed [Footnote 10: Since over 80% of the habitat restoration projects necessary to meet the 65,000 acre objective for CM4 have yet to be identified, the analysis in BDCP Draft EIR/EIS incorporated a set of generic assumptions about location, size, connectivity to existing Delta channels, etc. These assumptions drive the impact.] for CM4 would reduce salinity in the western Delta at Emmaton and in the Sacramento River at Rio Vista. BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2, Figures 6-6 and 6-7 at pp. 147-148 and 190. Conflating the effects of CM1 and CM4 makes it impossible to determine the extent to which the assumed configuration of CM4 results in improved water quality that offsets the impacts of CM1. The analysis must be disentangled to reveal the impacts of CM1 alone, and mitigation measures for CM1's water quality and water supply impacts must be provided.</p> <p>Second, CM4 mitigates for increased reverse flows in Georgiana Slough caused by CM1, which have an adverse impact on downstream-migrating Chinook salmon smolts. In a January 2014 presentation to a Delta Science Program Independent Review Panel Review of the BDCP Effects Analysis, BDCP Draft EIR/EIS authors reported that "[t]idal attenuation in the Sacramento River due to restoration reduces the frequency of reverse flows [in Georgiana Slough] under BDCP." (Zippen et al., 2014 at p. 62) In reviewing this analysis, the independent review panel recommended:</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. Please see Master Response 5 related to the status of the BDCP and Master Response 8 related to analysis of Alternative 4A. Please see Master Response 2 regarding applying a project-level analysis for CM1 and a program-level analysis for the remaining Conservation Measures for Alternatives 1 and 9.</p> <p>Please see Appendix 5A, Section C, of the EIR/EIS. Please see Chapter 8 and associated appendices in the EIR/EIS and Master Response 14.</p> |

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| | | <p>"The DSM2 simulations should be re-run for the ELT [Early Long-Term] and LLT [Late Long-Term] simulations with bathymetry that does not include the Restoration Opportunity Areas but driven with ELT or LLT river flow and tidal stage boundary conditions and operations. These simulations would clearly show how north Delta diversion operations change circulation patterns near Georgiana Slough and the Delta Cross Channel."</p> <p>(Parker et al., 2014 at p. 47)</p> <p>Here again, the analysis must be disentangled to reveal the impacts of CM1 alone. To the extent that tidal restoration in CM4 offsets the impacts of CM1, those tidal restoration projects must be classified as mitigation, a binding commitment to implement the mitigation must be made, and funding must be provided by the CM1 proponents.</p> | |
| 1563 | 108 | <p>Failure to evaluate the full range of habitat restoration impacts:</p> <p>The individual habitat restoration projects included in the BDCP could have either beneficial or adverse impacts on Delta water quality and water supply, depending on their location and configuration. Thus, the net effect of a suite of habitat restoration projects could have widely varying effects depending upon these factors for each of the individual projects.</p> <p>Since the specific projects that would make up the bulk of the habitat restoration effort are unknown, a proper analysis would have shown the range of potential impacts, from the most beneficial to the most adverse. This was not done. Instead, the analysis estimates program-level impacts from the habitat restoration actions based on generic assumptions, without assessing the key variables that will determine the range and magnitude of impacts that actually occur--and worse yet, this generalized impact estimate is then lumped together with the distinct impacts of CM1.</p> <p>So in addition to obscuring the project-level impacts of CM1, the approach used in the BDCP Draft EIR/EIS also obscures the program-level impacts of CM4.</p> | <p>The analysis for Conservation Measures 2-21 was completed at a programmatic level, as described in Chapter 4 of the EIR/EIS, for the analysis of Alternatives 1 through 9 as contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. Please see Master Response 5 related to the status of the BDCP and Master Response 8 related to analysis of Alternative 4A. Please see Master Response 2 regarding applying a project-level analysis for CM1 and a program-level analysis for the remaining Conservation Measures for Alternatives 1 and 9.</p> |
| 1563 | 109 | <p>The No Project and No Action Alternatives improperly exclude habitat restoration actions that are required by the existing Biological Opinions governing the operations of the Central Valley Project and State Water Project.</p> <p>Under CEQA, the No Project Alternative must encompass "what would be reasonably expected to occur in the foreseeable future if the project were not approved" CEQA Guidelines [Sections] 15126.6(e)(2), (e)(3)(C). The discussion of the No Project Alternative "provides the decision makers and the public with specific information about the environment if the project is not approved." Planning and Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th 210, 246-47 (2009), quoting Planning and Conservation League v. Department of Water Resources, 83 Cal. App. 4th 892, 917-18 (2000). Where the proposed project involves the revision of an ongoing plan or operation, the discussion of the No Project Alternative consists of the continuation of the existing plan or operation. CEQA Guidelines [Section] 15126.6(e)(3)(A). "Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan." Id. Where the proposed project is a development project on an identifiable piece of property, the No Project Alternative similarly "is the</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. It also should be noted that in the 2015 RDEIR/SDEIS and Final EIR/EIS, both Suisun Marsh and Yolo Bypass habitat restoration under the 2008 USFWS and 2009 NMFS biological opinions were included in the No Action Alternative analyses, including use of the operable gate at the Fremont weir to increase the frequency and extent of inundation.</p> <p>Please see Master Response 5 related to the status of the BDCP and Master Response 8 related to analysis of Alternative 4A. Please see Master Response 2 regarding applying a project-level analysis for CM1 and a program-level analysis for the remaining Conservation Measures.</p> |

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| | | <p>circumstance under which the project does not proceed." Id. [Section] 15126.6(e)(3)(B). If disapproval of the proposed project would result in "predictable actions by others," then "this 'no project' consequence should be discussed." Id. Accordingly,</p> <p>"where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." Id.</p> <p>The analysis of the No Action Alternative under NEPA is similar to the evaluation of the No Project Alternative under CEQA. As the Council on Environmental Quality has explained, where the proposed project involves updating an ongoing management plan or program, the No Action Alternative should be viewed as "no change from current management direction." Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (1981), Question #3; see also 40 C.F.R. [Section] 1502.14(d) (mandating analysis of no action alternative). The Council on Environmental Quality has further explained that "[w]here a choice of 'no action' by the agency would result in predictable actions by others, this consequence of the 'no action' alternative should be included in the analysis." Id. The purpose of these rules is to make sure that the analysis of the No Action Alternative "provides a benchmark, enabling decision makers to compare the magnitude of environmental effects of the action alternatives." Id.</p> <p>Here, the BDCP Draft EIR/EIS violates these straightforward principles by not including within the No Project and No Action Alternatives specific, identifiable habitat restoration actions that are required to take place if the BDCP is not approved. For example, the 2008 USFWS [US Fish and Wildlife Service] Biological Opinion for the coordinated operations of the Central Valley Project and State Water Project mandates that the Department of Water Resources "shall implement a program to create or restore a minimum of 8,000 acres of intertidal and associated subtidal habitat in the Delta and Suisun Marsh" (USFWS, 2008 at pp. 283-84 and p. 379). The Biological Opinion further mandates that these habitat restoration actions "shall begin within 12 months of the signature of this Biological Opinion and be completed by [the Department of Water Resources] within 10 years" (Id). The 2009 Biological Opinion issued by National Marine Fisheries Service for the coordinated operations of the CVP/SWP further requires the restoration of significant acreage of seasonal floodplain rearing habitat, with an "initial performance measure" of 17,000-20,000 acres (NMFS, 2009 at pp. 608-09).</p> <p>These habitat restoration actions are required under existing regulations in the event that the BDCP is not approved. But the BDCP Draft EIR/EIS does not include these required habitat restoration actions as part of the No Project and No Action Alternatives, on the ground that the restoration actions are planned to be implemented as part of the BDCP. BDCP Draft EIR/EIS, Appendix 3D, Table 3D-6 at pp. 3D-22 to 3D-23. But under CEQA and NEPA, the No Project and No Action Alternatives do not exclude future actions that are required to occur, merely because those actions are also planned to occur as part of the proposed project. Rather, the No Project and No Action Alternatives are supposed to depict what would happen if the proposed project is not approved. See CEQA Guidelines [Section] 15126.6(e)(2) (No Project Alternative under CEQA must describe "what would be reasonably expected to occur in the foreseeable future if the project were not</p> | |

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| | | <p>approved"); Council on Environmental Quality, Forty Questions, Question #3 (No Action Alternative under NEPA reflects "no change from current management direction" and includes "predictable actions" that would occur if the proposed project is not approved). Here, even if the BDCP is not approved, the habitat restoration actions specified by the existing Biological Opinions are required to be implemented. These actions are not merely "reasonably expected to occur" -- they are mandated by existing, binding regulations that govern the operations of the CVP and SWP.</p> <p>By excluding these habitat restoration actions from the No Project and No Action Alternatives, the BDCP Draft EIR/EIS fails to fulfill the key function served by comparing these alternatives to the effects of the proposed project -- which is to "provide the decision makers and the public with specific information about the environment if the project is not approved." Planning and Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th at 247; see also Council on Environmental Quality, Forty Questions, Question #3 (no action alternative "provides a benchmark, enabling decision makers to compare the magnitude of environmental effects of the action alternatives"). By providing a faulty comparison with the future No Project and No Action Alternatives, the BDCP Draft EIR/EIS fails to disclose the true nature and magnitude of the environmental impacts of approving and implementing the BDCP.</p> <p>Habitat restoration actions could cause certain adverse water quality impacts by altering Delta hydrodynamics. But such actions also would be expected to cause certain beneficial environmental impacts. The BDCP Draft EIR/EIS improperly takes credit for these beneficial impacts, by including them as part of the BDCP project and alternatives while at the same time excluding them from the No Project and No Action Alternatives. This makes it impossible for the public and decision-makers to discern what effects are attributable to the BDCP versus what effects would occur regardless of whether the BDCP goes forward.</p> | |
| 1563 | 110 | <p>The BDCP Draft EIR/EIS omits analysis of several significant water quality impacts, and understates others.</p> <p>The BDCP Draft EIR/EIS fails to evaluate several potentially significant water quality impacts.</p> <p>The BDCP Draft EIR/EIS fails to analyze potentially significant water quality impacts. Specifically, the BDCP Draft EIR/EIS fails to analyze how the proposed project could increase the formation of human carcinogens such as bromate and nitrosamines in drinking water, increase the presence and persistence of noxious algal species in surface waters in the Delta, change the drainage patterns from land to surface waters in the Delta, and increase the potential for public health and safety impacts resulting from a major earthquake that causes breaching of Delta levees. Each of these impacts is potentially significant but not considered in the BDCP Draft EIR/EIS, rendering the analysis inadequate to determine the project's full range of environmental impacts.</p> <p>Failure to evaluate potentially significant impacts is a clear violation of CEQA. Courts do not defer to the lead agency's judgment where an EIR entirely fails to analyze a potentially significant impact; the substantial evidence standard of review applies only to project impacts that have been analyzed, not to those that have been omitted. Bakersfield Citizens for Local Control v. City of Bakersfield, 124 Cal. App. 4th 1184,</p> | <p>Potential for increased formation of disinfection byproducts in drinking water is addressed in the Public Health chapter (Chapter 25) in Impact PH-2 for each alternative. The potential for increased public health and safety impacts resulting from a major earthquake causing breaching of Delta levees is discussed in Section 24.3.3.1 in Chapter 24 Hazards and Hazardous Materials and in Section 25.3.3.1 in Chapter 23 Public Health of the EIR/EIS. Such risks exist under the action alternatives as compared to the No Action Alternative.</p> <p>Please see Master Response 2 related to programmatic and site-specific analysis.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. Salinity under Alternatives 4A, 2D, and 5A would be less in the Delta as compared to action alternatives with large-scale habitat restoration. Please see Master Response 14 related to water quality.</p> <p>Assessment of effects to Microcystis and microcystin levels in the Delta and San Francisco Bay under the action alternatives as compared to the No Action Alternative is included in the EIR/EIS in the Water Quality chapter.</p> |

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| | | 1207-1208 (2004). Omission of these potential impacts must be rectified in a revised draft EIR/EIS. | |
| 1563 | 111 | <p>Failure to analyze the potential increase in carcinogens that form during raw water treatment:</p> <p>The BDCP Draft EIR/EIS identifies "constituents of concern" for municipal water suppliers, and acknowledges that they are precursors to "known or suspected human carcinogens." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-25 to 8-26. However, the analysis presented in the BDCP Draft EIR/EIS falls short of determining the public health impacts of elevated levels of certain key constituents of concern. Specifically, the BDCP Draft EIR/EIS is deficient in analyzing the effects of bromide, organic carbon, dissolved organic material, and organic nitrogen in formation of carcinogenic disinfection byproducts.</p> | Assessment of disinfection byproducts is provided under Impact PH-2 of Chapter 25, Public Health. Please see Master Response 14 related to water quality. |
| 1563 | 112 | <p>Bromide:</p> <p>Bromide is of concern in water as a precursor to the formation of disinfection byproducts such as bromate, bromoform and other brominated trihalomethanes (THMs), and haloacetic acids (HAAs), all of which are potentially harmful in municipal water supplies (CALFED, 2007 at p. ES-1). Research has shown that these disinfection byproducts cause cancer, kidney failure, thyroid disorders, and negative developmental and reproductive effects in laboratory animals (USEPA, 2013a). Bromate and other disinfection byproducts form at water treatment plants when ozone oxidizes waters containing bromide, a natural component of seawater, in the disinfection process. Disinfection byproduct (THM and HAA) formation increases when the source water contains both dissolved organic carbon and salts such as chloride and bromide (CALFED, 2007 at p. ES-1).</p> <p>The BDCP Draft EIR/EIS impact analysis regarding the effects of bromide is flawed in the following ways, each of which is expanded upon below:</p> <ul style="list-style-type: none"> * Production of carcinogens: Bromide concentration is directly related to the production of carcinogens (USEPA, 1998). However, rather than analyzing the magnitude of change in bromide concentration to determine potential impacts, the BDCP Draft EIR/EIS uses other analyses that are not relevant in assessing human health impacts. * Significance at drinking water intakes: Despite disclosing large increases in bromide concentration at two drinking water intakes, the BDCP Draft EIR/EIS determines the impacts to be less than significant on the insupportable basis that the use of the intakes already is hampered by poor water quality. * Interaction with other constituents of concern: Bromide concentration change was not considered in conjunction with change in organic carbon so the potential changes to disinfection byproduct formation and impacts to all municipal users reliant on the Delta are significantly underestimated. <p>Production of carcinogens. The formation of carcinogenic disinfection byproducts during water treatment is directly related to the concentration of bromide in the source water. Thus the change in the bromide concentration indicates the potential change in carcinogenic compounds and the resulting beneficial or adverse impacts on human health. Rather than evaluating the change in bromide concentration, the BDCP Draft</p> | <p>The magnitude of change in bromide was addressed in the water quality assessment and consideration of impacts to bromide at drinking water intakes in the Delta.</p> <p>The reasoning behind the methodology for assessing bromide is described in the "Constituent Specific Considerations Used in the Assessment" Section 8.3.1.7.</p> <p>The combined influence of dissolved organic carbon and bromide changes on disinfection byproduct formation are addressed in Impact PH-2 in Chapter 25, Public Health, of the EIR/EIS. Please see Master Response 14 related to water quality and bromide.</p> |

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| | | <p>EIR/EIS relies on analyses that obscure human health impacts.</p> <p>First, the BDCP Draft EIR/EIS analyzed the number of days that bromide concentration at municipal water intakes was greater than a threshold (100 micrograms per liter (µg/L)), above which production of carcinogenic compounds are likely to occur. BDCP Draft EIR/EIS, Chap. 8 at p. 8-147. This analysis obscures impacts because it does not assess the quantity of carcinogenic compounds produced. For instance, if the bromide concentration on a given day is expected to be 105 µg/L without a project and 130 µg/L with a project, the project would cause an increase of 25 µg/L of bromide, which would increase carcinogen production during the water treatment process. However, if the analysis only looks at the number of days that the micrograms per liter threshold is exceeded, no impact would be identified, thus obscuring human health impacts.</p> <p>Second, the BDCP Draft EIR/EIS analyzed the percent by which bromide concentration would change at municipal water intakes. This analysis obscures impacts because it is the magnitude of the bromide concentration, not the percentage by which it changes, that dictates human health impacts. The BDCP Draft EIR/EIS found that there would be significant bromide impacts at Barker Slough/North Bay Aqueduct based on the change in number of days bromide concentration exceeded 100 µg/L and the percent change in bromide concentration. BDCP Draft EIR/EIS, Chap. 8 at p. 8-42. The analyses found no other locations to be significantly impacted by bromide. This conclusion is incorrect and significant bromide impacts should have been found at other drinking water intakes in the Delta. By using percent change in bromide concentration rather than the magnitude of change in bromide concentration, the BDCP Draft EIR/EIS neglects to assess the potentially significant increase in disinfection byproducts and associated health risks.</p> <p>For example, the long-term average bromide concentration under the DWR Preferred Alternative (Alternative 4), Scenario H1, would increase 24 µg/L as compared to the No Action Alternative (from 367 µg/L to 391 µg/L, or 7%) at CCWD's Rock Slough intake. BDCP Draft EIR/EIS, Appendix 8E, Table 11. For the same alternative, the long-term average increase at Barker Slough would be 8 µg/L (from 66 µg/L to 74 µg/L, or 12%). BDCP Draft EIR/EIS Appendix 8E, Table 11. Assuming all other variables remain unchanged, the bromide concentration at the Rock Slough intake could cause bromate formation (USEPA, 1998) to increase by 0.3 µg/L under the Preferred Alternative to 6.6 µg/L; this corresponds to an increase in cancer risk from 1.27 to 1.33 people per 10,000 people for populations served from the Rock Slough intake (USEPA, 2013b). The bromide concentration at Barker Slough could cause bromate formation to increase under the DWR Preferred Alternative by 0.15 µg/L to 2.0 µg/L; this corresponds to an increase in cancer risk from 0.36 to 0.39 people per 10,000 people for populations served from Barker Slough (USEPA, 2013b). Although the percentage change in bromide is greater at Barker Slough than at the Rock Slough intake, the magnitude of bromide concentration increase -- and the disinfection byproduct formation and associated cancer risk -- is greater at the Rock Slough intake than at Barker Slough. This impact at CCWD's Rock Slough intake is significant and must be disclosed, evaluated and mitigated.</p> <p>By focusing the impact analysis on metrics other than the magnitude of change in bromide concentration, the BDCP Draft EIR/EIS fails to consider the risk to human health associated with carcinogenic disinfection byproducts. The BDCP Draft EIR/EIS provides no chemical, biological or other basis for using percent change and the number of days</p> | |

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| | | <p>bromide concentration exceeded 100 µg/L as the criteria for significance. This approach obscures human health impacts and should be corrected.</p> <p>Significance at drinking water intakes. Although the BDCP Draft EIR/EIS recognizes that the action alternatives would increase bromide concentrations at drinking water intakes in the western Delta, the BDCP Draft EIR/EIS asserts that these effects are less than significant because water quality at the two western Delta intakes already is impaired so as to restrict their use for drinking water purposes, so that further degrading the water quality at the intakes is not considered to be a significant environmental impact. As shown in Table 2-1 below [see ATT D], the modeling conducted for the BDCP Draft EIR/EIS indicates substantial increases in long-term average bromide concentrations due to the project at both the City of Antioch intake and the Mallard Slough intake. [Footnote 11: The Mallard Slough intake is owned and operated by Contra Costa Water District.]</p> <p>The significant increase in bromide at these intakes is dismissed by asserting that these intakes are "infrequently used due to water quality constraints" and that "opportunities" to use the intakes would remain. BDCP Draft EIR/EIS at pp. 8-418 to 8-419. [Footnote 12: Contrary to this assertion in the BDCP Draft EIR/EIS, during wetter years, water at the Mallard Slough intake frequently is usable for drinking water purposes. For example, water at the intake was of sufficiently high quality in 2011 to be usable for drinking water diversions for 198 days (i.e., it was usable for drinking water more days than it was not usable). Even in drier years, there are periods in the winter and spring months when water at the intake is usable for drinking water. For the decade preceding the CEQA baseline date of February 2009, the annual average of usable water days was 83.2 days; for the 5-year period preceding the CEQA baseline date, the annual average similarly was 82.4 days.] This approach defies logic. The fact that water quality problems already restrict use of the intakes makes a further restriction on that use all the worse.</p> | |
| 1563 | 113 | [ATT D: Table 2-1. Magnitude and percent change of bromide concentration compared to the CEQA baseline and the NEPA baseline in above normal years and wet years at municipal water intakes in the west Delta. Source: Based on values in Table 24 in BDCP Appendix 8E.] | Please see Master Response 1 related to Baseline. |
| 1563 | 114 | <p>Contrary to the analysis and findings in the BDCP Draft EIR/EIS, the law does not support the approach of finding that an environmental impact is insignificant based on the claim that the existing problem already is significant. Cf. Los Angeles Unified School District v. City of Los Angeles, 58 Cal. App. 4th. 1019, 1025 (1997) (rejecting insignificance finding for cumulative impact, where finding was based on the premise that existing noise levels already exceeded the applicable significance thresholds), citing Kings County Farm Bureau v. City of Hanford, 221 Cal. App. 3d 692, 718 (1990).</p> <p>The intakes in the western Delta are -- and will continue to be -- used for drinking water purposes and implementation of the BDCP would adversely affect these existing and future beneficial uses by substantially increasing bromide levels. The BDCP Draft EIR/EIS cannot properly rely on the severity of the existing water quality constraints to find that making the constraints worse is insignificant. Nor can it support this finding by claiming that, although the project would substantially increase the amount of bromide and chloride in the water and exacerbate the existing water quality constraints, some unspecified, diminished opportunity to use the intakes for drinking water purposes may</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration.</p> <p>Please see Master Response 14, Water Quality and Master Response 22, Mitigation. The combined influence of dissolved organic carbon and bromide changes on disinfection byproduct formation are addressed in Impact PH-2 in Chapter 25, Public Health.</p> |

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| | | <p>remain.</p> <p>Interaction with other constituents of concern. The BDCP Draft EIR/EIS fails to evaluate changes in bromide in conjunction with changes in organic carbon. Scientific studies have shown that increased organic carbon increases formation of THMs and HAAs during disinfection when bromide concentrations are above 100 µg/L (Zhang et al., 2011 at p. 186). The BDCP Draft EIR/EIS determined that impacts associated with dissolved organic carbon are significant and unavoidable and that bromide concentrations are often above the 100 µg/L threshold. BDCP Draft EIR/EIS, Chap. 8 at p. 8-457. By neglecting to consider the increases in bromide in conjunction with the increased organic carbon, the BDCP Draft EIR/EIS fails to analyze the resulting formation of carcinogenic compounds and human health risks.</p> <p>The BDCP Draft EIR/EIS must re-evaluate and disclose the impacts to human health due to increased bromide concentrations, including the compounding influence of increased organic carbon. Adequate mitigation must be provided for all significant adverse impacts.</p> | |
| 1563 | 115 | <p>Dissolved organic material and organic nitrogen:</p> <p>Dissolved organic material and organic nitrogen can create impacts. The BDCP Draft EIR/EIS recognizes that nitrosamines have long been suspected carcinogens, but their more recent discovery as a disinfection byproduct has spurred increased attention in recent years. BDCP Draft EIR/EIS, Chap. 8 at p. 8-26. However, the BDCP Draft EIR/EIS fails to analyze and disclose the potential change in Delta water quality that could lead to changes in nitrosamine formation and associated health or environmental problems.</p> <p>Chloramination of water containing dissolved organic material and organic nitrogen, such as occurs during water and wastewater treatment, can lead to the production of nitrosamines such as N-Nitrosodimethylamine (Mitch et al., 2003). Nitrosamines are highly carcinogenic (USEPA, 2013c). Nitrosamines are not easily removed during treatment, as they do not readily biodegrade, adsorb, or volatilize. BDCP Draft EIR/EIS, Chap. 8 at p. 8-57.</p> <p>The alternatives considered in the BDCP Draft EIR/EIS have the potential to change the concentration of dissolved organic material and organic nitrogen compounds in the Delta via changes in export operations associated with CM1 and changes in tidal habitat associated with CM4. To restore tidal habitat, CM4 would flood islands that are currently used as farmland. The transition from farmland to flooded habitat could result in increased loading of dissolved organic material to the Delta waterways. Peat soils, such as those found throughout most of the Delta, are high in organic carbon and nitrogen compounds (Kegel, 1979; Ingebritsen and Ikehara, 1999 at pp. 83-94). When those soils are flooded and allowed to exchange with the waters in the channels, increased concentrations of organic compounds (carbon, nitrogen and phosphorous) would be expected for a period of time on the order of years (Reddy, 2005). The increase in loading of organic compounds to waters currently diverted and treated for municipal use could increase the formation of potent carcinogenic nitrosamines such as N-Nitrosodimethylamine (Kalbitz and Geyer, 2002; Lee et al., 2007).</p> <p>DWR has failed to apply its own standards of analysis in the BDCP Draft EIR/EIS. The BDCP Draft EIR/EIS is flawed because it failed to recognize or analyze the potential impacts of</p> | <p>The water quality assessment addressed both the potential for increased organic carbon (Impacts WQ-17 and WQ-18) and increased nitrogen compounds (Impacts WQ-1 and WQ-2 for ammonia and Impacts WQ-15 and WQ-16 for nitrate).</p> <p>Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. Please see Master Response 14 related to water quality.</p> |

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| | | <p>increased concentrations of nitrosamines and other disinfection byproducts that are harmful to human health. It is reasonable to expect that the BDCP Draft EIR/EIS should evaluate the potential impacts of nitrosamines because DWR has requested that other projects in the Delta examine the very same impacts. For instance, on June 25, 2010, DWR requested an evaluation of the potential impacts the Delta Wetlands Project could have on nutrient loading that affect drinking water quality and associated treatment costs: "An increase in ammonia (NH₃) from Delta Wetlands has the potential to increase nitrosamine disinfection byproduct formation at State Water Project water treatment plants...Delta Wetlands should evaluate whether project nutrient loads are likely to be significantly higher than current loads discharged under the island's farming operations. Given the concerns about current nutrient concentrations in the Delta and State Water Project and Central Valley Project, if it is determined that the project will cause increased nutrient loading, then mitigation should be developed." (Semitropic Water Storage District, 2011 at p. 3-87.)</p> <p>The BDCP Draft EIR/EIS must be revised to include an evaluation of the impacts of increased dissolved organic material and organic nitrogen concentrations in Delta waterways that can lead to increases in nitrosamines and increased treatment requirements at water supply and treatment facilities. Adequate mitigation must be provided for all significant adverse impacts.</p> | |
| 1563 | 116 | <p>Failure to analyze changes in Delta algae and algal byproducts:</p> <p>Algae and algal byproducts can create impacts. Aquatic algae produce chemical compounds that can be toxic to humans and animals, and that have noxious tastes and odors. These compounds are difficult to remove in conventional water treatment processes and cause impacts to drinking water. Furthermore, algal blooms and aquatic plant growth, such as <i>Egeria densa</i>, also require physical removal at water supply and treatment facilities. An increase in growth is likely to cause impacts to water suppliers due to additional removal and treatment requirements.</p> <p>Toxins are produced by some species of blue green algae (cyanobacteria) and are released into the surrounding water when algal cells die. A potent liver toxin, microcystin, is present in the Delta; ingestion of water or algal cells containing microcystin has produced adverse effects in fish, dogs, cats, livestock, and humans (Office of Environmental Health Hazard Assessment, 2009 at p. 1). The U. S. Environmental Protection Agency has listed freshwater cyanobacteria and their toxins, including microcystin, on the Drinking Water Contaminant Candidate List 3 (Federal Register, 2009). New Zealand, Germany, and the World Health Organization have established microcystin guidelines of 1.0 µg/L, while Canada has established a 1.5 µg/L guideline (Trojan Technologies, 2010). Measureable levels of microcystin in the Delta have been linked to algal blooms of <i>Microcystis aeruginosa</i> (State Water Project Contractors Authority and DWR, 2012 at p. ES-10). The frequency and magnitude of <i>Microcystis</i> blooms in the Delta is likely to increase in the future given climate change (Lehman et al., 2013 at p. 142) and is likely to increase significantly due to changes associated with the BDCP alternatives.</p> <p>In addition to algae that produce toxins, many other species of aquatic algae produce noxious tastes and odors. The primary causes of reported taste and odor problems in drinking water are the chemical compounds geosmin and 2-methylisoborneol (MIB) (Korth et al., 1992), which are produced by multiple species of cyanobacteria. The odor</p> | <p>Assessment of effects to <i>Microcystis</i> and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay is included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 and Chapter 8 of the Final EIR/EIS. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased <i>Microcystis</i> blooms and, thus, microcystins in the waters.</p> <p>Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. For Alternatives 4A, 2D, and 5A, the impact on <i>Microcystis</i> and microcystin would be less than significant.</p> <p>Please see Master Response 14 related to water quality and the <i>Microcystis</i> assessment.</p> |

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| | | <p>thresholds for geosmin and MIB are very low; humans can typically detect them in drinking water at 30 and 10 nanograms per liter (parts per trillion), respectively (Persson, 1980; Korth et al., 1992). The frequency and magnitude of cyanobacteria blooms in the Delta also would increase significantly due to changes associated with the BDCP alternatives.</p> <p>Conventional water treatment plants are not capable of removing many of these toxic and noxious algal byproducts and could require costly upgrades to handle increases in these compounds. CCWD's two water treatment plants (Bollman and Randall-Bold) have ozone treatment systems that are capable of removing current levels of algal byproducts at the proper ozone dosage and pH level. However, the expected increase in algal byproducts caused by the BDCP would require a corresponding increase in ozone dosage; the amount of such an increase is limited by the requirement not to increase bromate formation to levels that exceed the bromate maximum contaminant level, established to prevent the potential carcinogenic effects of excess bromate in drinking water.</p> <p>Contra Costa Water District provides treated water to its customers from the Bollman water treatment plant in Concord and Randall-Bold water treatment plant in Oakley. Both water treatment plants use flocculation, sedimentation, filtration, ozonation, and chloramination to produce high quality drinking water. CCWD relies on ozone application to reduce tastes and odors but the effectiveness of the treatment is limited by pH and regulated disinfection byproduct limits. Increased cyanobacteria in Delta waters would necessitate more frequent changes of filtration materials and increase chemical usage (ozone and sulfuric acid) to control pH, disinfection byproducts, and noxious tastes and odors.</p> | |
| 1563 | 117 | <p>The BDCP alternatives are likely to increase noxious algal species and byproducts in the Delta. The BDCP Draft EIR/EIS discloses that the phytoplankton (microalgae) growth rate would increase in most of the restoration opportunity areas leading to an increase in phytoplankton biomass in the Delta. BDCP, Chap. 5 at pp. 5.3-36 to 5.3-37. BDCP-caused changes to the environment have the potential to favor noxious species that would increase taste and odor problems and microcystin in Delta waters. The BDCP Draft EIR/EIS cannot ignore this potentially significant effect. The BDCP Draft EIR/EIS impact analysis ignores the following factors:</p> <ul style="list-style-type: none"> * Proposed habitat in the south Delta, in the vicinity of Contra Costa Water District's municipal water intakes, is similar to habitat that has been shown to increase taste and odor compounds; * Projected changes in water quality would favor cyanobacteria, thereby increasing the likelihood of more frequent, larger blooms; and * Projected increases in residence time would allow cyanobacteria blooms to thrive and last longer. <p>Each of these factors individually could contribute to increased cyanobacteria blooms; taken together, the impacts are likely to be significant.</p> <p>Proposed habitat in the south Delta, in the vicinity of Contra Costa Water District's municipal water intakes, is similar to habitat that has been shown to increase taste and</p> | <p>Assessment of effects to Microcystis and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay is included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 based on public comments on the 2013 Draft EIR/S. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased Microcystis blooms and, thus, microcystins in the waters. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. For Alternatives 4A, 2D, and 5A, the impact on Microcystis and microcystin would be less than significant.</p> <p>Please see Master Response 14 related to water quality and the Microcystis assessment.</p> |

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| | | <p>odor compounds. All of the BDCP action alternatives, except Alternative 5, include creation of 65,000 acres of tidal habitat, including nearly 11,000 acres in the south Delta that would be permanently under water. BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 2, Table 2-3. This proposed habitat in the south Delta is similar in size and location to the area created by the flooding of Jones Tract in 2004; the Jones Tract levee breach flooded approximately 12,000 acres of farmland (DWR, 2009b at p. iii) just to the northwest of the BDCP's proposed south Delta habitat restoration opportunity area. The flooding of farmland to create tidal habitat proposed by the BDCP could result in changes in water quality in the Delta similar to those observed during and after the flooding of Jones Tract, which resulted in both an acute short-term impact and a long-term negative impact on drinking water quality. Shortly after the Jones Tract levee breached in June 2004, sampling at Clifton Court Forebay detected high levels of MIB (2-methylisoborneol). Investigations traced the MIB source back to a species of cyanobacteria, <i>P. perornata</i>, contained in the waters draining off Jones Tract. Pumping water through the Delta transported <i>P. perornata</i> from Clifton Court Forebay to facilities in southern California where these specific cyanobacteria had not been detected in prior years. They have since colonized local reservoirs and continue to cause taste and odor problems (DWR, 2009b at p. 4-2).</p> <p>Projected changes in water quality would favor cyanobacteria, thereby increasing the likelihood of more frequent, larger blooms. Cyanobacteria thrive in relatively warm, calm, clear, nutrient-rich waters (Paerl, 1996; Chorus et al., 2000). The BDCP Draft EIR/EIS indicates that the BDCP would cause several potentially deleterious changes that would create the type of environment in which cyanobacteria thrive, as follows:</p> <p>* Nutrients [Footnote 13: Although the BDCP Draft EIR/EIS did not evaluate potential increases in nutrients from the flooding of agricultural tracts, concentrations of ammonia, total Kjeldahl nitrogen, and total phosphorous were found to be elevated in the flooded water of Jones Tract (DWR, 2009b) and could be an indicator of the effects of similar flooded habitat proposed by the BDCP.] would increase: the BDCP Draft EIR/EIS reports that ammonium concentrations entering the Delta on the Sacramento River would increase from July through September during peak algal growth season and phosphorous concentrations would increase by a small amount. BDCP Draft EIR/EIS, Chap. 8 at p. 8-410 and p. 8-469.</p> <p>* Tidal mixing would decrease in the south Delta creating calmer waters. BDCP Draft EIR/EIS, Appendix 5A-D2 at p. 138.</p> <p>* Residence times would increase. BDCP, Chap. 5 at p. 5.3-36.</p> <p>* Water clarity would increase. BDCP Draft EIR/EIS, Chap. 11 at p. 11-1299, BDCP, Chap. 5 at p. 5.3-25.</p> <p>The references above are for impacts of Alternative 4, the DWR Preferred Alternative; similar impacts are disclosed for other alternatives as well.</p> <p>Furthermore, scientific research on flooded islands in the south Delta found that water temperature in Mildred Island, a shallow embayment, varied strongly from the northern section (which had relatively low residence time) to the southern section (which had relatively high residence time). Warmer water was present in the southern section due to</p> | |

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| | | the longer residence time in this region (Monsen et al., 2002). The nearly 11,000 acres of land in the south Delta that the BDCP proposes to convert to similar habitat would be likely to increase the local water temperature, creating favorable conditions for cyanobacteria growth. [Footnote 14: Although the analysis done for the BDCP did not find temperature impacts in the Delta, this is because the analysis was done on habitat areas represented as deep lakes rather than as the shallow, tidal areas that are in fact planned. BDCP, Chap. 5 at p. 5.3-20. See Section 2.2.2.6 of these comments for a discussion of the reason for and consequences of this error.] | |
| 1563 | 118 | The BDCP recognizes that "[g]reater water residence time under the BDCP from changes in water operations and restoration may promote the toxic blue-green alga Microcystis and result in direct toxic effects on delta smelt and indirect effects on delta smelt through reductions in food availability." BDCP, Chap. 5 at p. 5.5.1-32. Despite this recognition, there is no analysis of the impacts of Microcystis in the BDCP Draft EIR/EIS for aquatic resources (Chapter 11) or drinking water quality (Chapter 8). | Impact assessments of the project alternatives effects on Microcystis have been added to the Final EIR/EIS in Chapter 8 under Impacts WQ-32 and WQ-33. Please see Master Response 14. |
| 1563 | 119 | Projected increases in residence time would allow cyanobacteria blooms to thrive and last longer. Scientific research has linked decreased tidal mixing coupled with increased water clarity to increased Microcystis blooms in the Delta and the spread of microcystin toxin in the food web (Lehman et al., 2008; Lehman et al., 2013). Residence time in the south Delta would increase in response to reductions in south Delta exports and creation of south Delta tidal marsh. As algal blooms associated with cyanobacteria increase in the south Delta, State Water Project and Central Valley Project operators would likely preferentially use the BDCP's north Delta intakes [Footnote 15: Alternative 9 does not include intakes in the north Delta, and thus this feedback mechanism is not present in Alternative 9.] to avoid the water quality problems in the south Delta, increasing the reductions in south Delta exports beyond those analyzed in the BDCP Draft EIR/EIS. The shift in export location as described in the BDCP Draft EIR/EIS is likely to impact the water quality for those who rely on water from the central and south Delta, and this feedback mechanism is likely to exacerbate the impacts. | Assessment of effects to Microcystis and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay is included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 and Chapter 8 of the Final EIR/EIS. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased Microcystis blooms and, thus, microcystins in the waters. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. For Alternatives 4A, 2D, and 5A, the impact on Microcystis and microcystin would be less than significant. Please see Master Response 14 related to water quality and the Microcystis assessment. |
| 1563 | 120 | DWR has failed to apply its own standards of analysis in the BDCP Draft EIR/EIS. The BDCP Draft EIR/EIS is flawed because it failed to recognize or analyze the potential impacts of increased concentrations of algae and algal byproducts. It is reasonable to expect that the BDCP Draft EIR/EIS should evaluate the potential impacts of algal byproducts, not only because this is an impact that affects public health and safety but also because DWR has itself acknowledged the importance of this issue and specifically requested that other projects in the Delta examine the very same impacts. For instance, on June 25, 2010, DWR requested an evaluation of the potential impacts that the Delta Wetlands Project could have on taste and odor-causing algae and algal byproducts that affect drinking water quality and associated treatment costs: "[Delta Wetlands] should also evaluate the potential effects associated with the changes in timing of nutrient loading and the potential for project discharges to increase the levels of taste and odor compounds present in drinking water supplies... the project could exacerbate taste and odor concerns in the SWP [State Water Project]; however, these issues were not evaluated and disclosed in the POU [Place of Use] EIR or in previous environmental documents for the project. An evaluation should be conducted, the results disclosed, and mitigation measures for negative impacts to the SWP included in the Final | Assessment of effects to Microcystis and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay is included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 and Chapter 8 of the Final EIR/EIS. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased Microcystis blooms and, thus, microcystins in the waters. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. For Alternatives 4A, 2D, and 5A, the impact on Microcystis and microcystin would be less than significant. Please see Master Response 14 related to water quality and the Microcystis assessment. |

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| | | <p>POU EIR." (Semitropic Water Storage District, 2011 at p. 3-88). DWR was concerned that Delta Wetlands' flooding of farmland to create water storage reservoirs could increase algae blooms, and cause impacts similar to those that occurred when Jones Tract flooded in 2004. BDCP tidal habitat projects would have the same types of effects.</p> <p>DWR raised similar concerns when commenting on Sacramento Regional County Sanitation District's National Pollutant Discharge Elimination System Permit renewal for the Sacramento Regional Wastewater Treatment Plant. DWR stated that "[p]rimary drinking water constituents of concern associated with the Sacramento Regional County Sanitation District's discharge include, but are not limited to, organic carbon, nutrients, pathogens, taste and odor causing compounds and nitrosamines and their precursors. ... From a drinking water perspective, increased nutrient loading can lead to eutrophication of source waters, which in turn can lead to increased levels of organic carbon, objectionable taste and odor producing compounds (i.e. Geosmin and MIB [2-methylisoborneol]), and toxic microcystins. ... When nutrient enriched waters enter the State Water Project, the eutrophication effect can be amplified as hydraulic residence time increases" (DWR, 2010 at pp. 1, 3, and 4).</p> <p>The BDCP Draft EIR/EIS must be revised to include an evaluation of the potential changes in algal concentrations in the Delta, the impacts of algal byproducts that are toxic to humans and wildlife, algal taste and odor-causing compounds, and increased removal and treatment requirements at water supply and treatment facilities. Mitigation must be identified for all significant adverse impacts.</p> | |
| 1563 | 121 | <p>Failure to evaluate the impacts of altered drainage patterns on water quality:</p> <p>Alteration of drainage within the Delta can create impacts. The large-scale alterations to the Delta landscape proposed by the BDCP include "improvements to local drainage systems affected by the alternatives." BDCP Draft EIR/EIS, Chap. 3 at p. 3-31. The BDCP Draft EIR/EIS recognizes agricultural drainage as one of the primary factors affecting water quality including concentrations of boron, bromide, chloride and dissolved organic carbon. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-13, 8-40, 8-42, 8-43, and 8-76. It follows, therefore, that any alteration of existing Delta drainage systems (such as the relocation of discharge points) has the potential to adversely impact levels of these water quality constituents.</p> <p>However, the adverse water quality effects resulting from altered drainage patterns are considered in the BDCP Draft EIR/EIS only for project construction. As the BDCP Draft EIR/EIS explains, the relevant significance criterion that applies to the alteration of drainage patterns, "which occurs through construction of the various components of the project," is whether existing drainage patterns would be altered "in a manner which would result in substantial erosion or siltation on- or off-site." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-176 to 8-177. But there is no discussion or evaluation of the potential permanent changes to agricultural drainage in the Delta. As a result, there is no discussion or evaluation of the potential changes in water quality constituents such as salinity, selenium, or organic carbon resulting from these permanent alterations.</p> <p>Changes in the location, timing, volume, velocity, chemical constituents, or other characteristics of drainage in the Delta have the potential to significantly and adversely impact Delta water quality, particularly in the vicinity of the drainage. This potential for</p> | <p>Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Chapter 8 of the Final EIR/EIS provides an updated analyses of water quality impacts, and addresses the potential for changes in pesticide contamination in Delta waters from agricultural discharges. As stated under in Chapter 8, impacts would be less than significant because pesticide loading would not be expected to increase above Existing Conditions related to agricultural discharges under Alternatives 2D, 4A, and 5A because these alternatives do not include large-scale habitat restoration and related large-scale agricultural land conversion that would occur under Alternatives 1 through 9 as presented in the 2013 Draft EIR/EIS.</p> <p>Please see Chapter 14 and the associated Conceptual Engineering Reports. Drainage outfalls within the footprint of the intakes would be relocated within the vicinity of the intakes. Water quality impacts are fully discussed within Chapter 8 for each alternative, with extensive discussion regarding potential sources of water quality impacts and measures to be implemented to protect water quality.</p> <p>Please see Master Response 14 regarding water quality.</p> |

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| | | <p>drainage to impact water quality is acknowledged elsewhere in the BDCP Draft EIR/EIS. Landowners who wish to participate in CM21 (which provides funding for actions to reduce fish entrainment by non-project diversions) are required to demonstrate that "subsurface drain water and/or surface return flow discharged into a Delta waterway does not have an unreasonable impact on Delta water quality." BDCP Draft EIR/EIS, Chap. 3 at p. 3-166. The BDCP's other actions should be held to the same standard imposed on CM21.</p> <p>DWR has failed to apply its own standards of analysis in the BDCP Draft EIR/EIS. The BDCP Draft EIR/EIS is flawed because it failed to recognize or analyze the impacts of altering drainage patterns in the Delta. It is reasonable to expect that the BDCP Draft EIR/EIS should evaluate the potential impacts of changed drainage patterns because the BDCP proponents have clearly recognized the potential for agricultural drainage to impact water quality in the past. For instance, all lead agencies for the BDCP -- DWR, Reclamation, USFWS, and the National Marine Fisheries Service -- were among the lead agencies for the 2000 Record of Decision for the Programmatic EIS/EIR for the CALFED Bay-Delta Program, which specifically included an action to reduce agricultural drainage in the Delta in order to minimize salinity and other constituents of concern at drinking water intakes (CALFED, 2000 at p. 50). DWR funded two CALFED water quality improvement projects involving local drainage systems: the relocation of an agricultural drain on Veale Tract and the redesign and construction of Byron Tract drainage, in order to improve water quality at CCWD's Rock Slough and Old River intakes. DWR Contract No. 460002846 provided CALFED funding of \$2,009,950, and DWR Contract No. 4600003591 provided CALFED funding of \$2,855,000 for these projects, and work was completed in 2006.</p> <p>Furthermore, in 2007, DWR prepared a report entitled "Sources of Salinity in the South Sacramento-San Joaquin Delta" detailing the contributions of discharges from agricultural drains to high salinity issues in the south Delta, in particular, those that regularly develop between San Joaquin River at Vernalis and Old River at Tracy Bridge or Grant Line Canal at Tracy Bridge. DWR has recognized agricultural drainage as the principal cause of high salinity in this region since the 1960's (DWR, 2007 at p. 1).</p> <p>The BDCP Draft EIR/EIS must be revised to include an evaluation of the potential changes in water quality due to alteration of local drainage systems and disclose the impacts. Mitigation or avoidance measures must be identified for all significant adverse impacts.</p> | |
| 1563 | 122 | <p>Failure to analyze the impacts of the project in the event of levee failures:</p> <p>The BDCP Draft EIR/EIS states that an objective of the project is 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 the breaching of Delta levees and the inundation of brackish water into areas in which the SWP and CVP pumping plants operate in the south Delta." BDCP Draft EIR/EIS, Chap. 2 at p. 2-3. Furthermore, the BDCP Draft EIR/EIS explains that the Delta and vicinity "is within a highly seismic area, with a generally high potential for major future earthquake events along nearby and/or regional faults, and with the probability for such events increasing over time." Id., Appendix 3E at p. 3E-15. The BDCP Draft EIR/EIS accordingly concludes that "the potential for significant damage to, or failure of, these structures during a major local seismic event is generally moderate to high." Id. But the environmental analysis does not include the impacts to water quality that would result from the operation of the BDCP</p> | Please refer to Appendix 3E in the EIR/EIS for information on potential operations under a levee failure situation. For more information on levee stability and seismic risk please see Master Response 16. |

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| | | <p>water conveyance facilities under these likely future conditions. This failure to address a reasonably foreseeable impact of future project operations is improper and needs to be remedied in a revised analysis.</p> <p>The text of Appendix 3E of the BDCP Draft EIR/EIS suggests that the authors of the document had intended to discuss this important issue, stating that "[t]hroughout this Appendix, readers are directed to sections of the EIR/EIS to find analyses of how the risks and impacts described in this appendix would impact the BDCP alternatives." BDCP Draft EIR/EIS, Appendix 3E at p. 3E-1. However, the readers of Appendix 3E are never directed to any sections in the EIR/EIS for further descriptions or analyses of how the BDCP water conveyance facilities would be operated, in accordance with the stated project objective, to provide water supplies in the event of seismic event causing levee failure. That is because the issue is not addressed in the BDCP Draft EIR/EIS and the resulting environmental impacts are nowhere disclosed.</p> <p>Appendix 3E provides a detailed risk assessment, including the seismic characteristics of the region, the probability of a seismic event large enough to cause levee failures, the likelihood of multiple levee failures resulting in seawater intrusion, and the damage to water supplies associated with such an event. Appendix 5B provides a detailed analysis of the effects of supply disruption on the project proponents caused by a seismic event with multiple levee failures and resultant seawater intrusion in the south Delta, and general descriptions of possible responses to the loss of water supply that could be implemented in the absence of the BDCP. However, the BDCP Draft EIR/EIS does not include any information regarding how the BDCP would operate to remedy these supply losses and therefore it fails to disclose the reasonably foreseeable impacts on Delta water quality and supplies resulting from those operations.</p> <p>The BDCP Draft EIR/EIS is therefore flawed and it needs to be revised to 1) describe how the BDCP water conveyance facilities would operate to meet the stated project objective, and 2) analyze the resulting environmental impacts of these operations. Without this information, the public has no opportunity to understand how the BDCP would meet the objective and what the range of impacts could be.</p> <p>Given the "moderate to high" probability of a major seismic event leading to significant levee failure, the BDCP Draft EIR/EIS should describe how each alternative would operate under one or more likely seismic scenarios and analyze the impacts of such operations. This analysis can and should be done; in fact, the BDCP consultants have conducted such an analysis. On July 29, 2010, the BDCP Steering Committee was provided the results of detailed scenarios of exactly this type of seismic event (RMA, 2010); those results included an analysis of the salinity in the Delta following the failure of levees on the 13 most susceptible islands during severe drought conditions. An analysis of the impacts of levee failure conditions that are likely to occur and that the BDCP is intended to remedy should be included in the BDCP Draft EIR/EIS.</p> <p>In overlooking this issue, the BDCP Draft EIR/EIS misses an important and reasonably foreseeable environmental impact that the project could cause. The BDCP Draft EIR/EIS goes to great lengths to explain the risk of a seismic event and its consequences to water supply. The BDCP Draft EIR/EIS makes a convincing argument that multiple levee failures will occur, it plans for them as an objective for the project to remedy, and it states the likely impacts on water supplies if that objective is not met. But the analysis needs to</p> | |

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| | | follow through with a description of how each alternative would respond to the anticipated seismic conditions and resulting levee failure -- as promised in Appendix 3E and as incorporated into the project objectives -- and what the impacts of that response would be. | |
| 1563 | 123 | BDCP alternatives that include intakes in the north Delta (Alternatives 1 through 8) would have adverse environmental consequences in the event of a levee failure when operating to meet the stated objective. Under the No Action Alternative, exports would be stopped because water quality would reach a level unacceptable for any beneficial uses of the exported water. BDCP Draft EIR/EIS, Appendix 5B. The water not exported would in turn go to outflow, which -- according to the results presented by the BDCP consultants to the BDCP Steering Committee in 2010 -- would freshen the Delta channels in a few months (RMA, 2010). In sharp contrast, under the BDCP alternatives that include one or more north Delta intakes, exports would not stop, but would rather be shifted from the existing south Delta intakes to the proposed north Delta intakes. BDCP Draft EIR/EIS, Chap. 29, p. 29-20. Using the proposed north Delta water intakes to export water out of the Sacramento River, before the fresh water flows reach the central Delta, might ensure that the exporters could maintain their water supplies, but this would lengthen the amount of time required for the entire Delta to recover from the seawater intrusion, depriving other Delta water users of their water supplies for longer than necessary, and extending the severe impacts to fisheries (for example, delta smelt habitat area would be greatly diminished for a longer period of time). | <p>Please refer to Appendix 3E in the EIR/EIS for information on potential operations under a levee failure situation. For more information on levee stability and seismic risk please see Master Response 16.</p> <p>The EIR/EIS did not address conditions under a levee failure because impact analysis was based on a long-term analysis and did not include emergency situations as too speculative. It also should be noted that the No Action Alternative and action alternatives assumed timely repairs of levees critical to maintain the Delta conditions in a manner similar to historic operations. Therefore, operations decisions to continue to operate the north Delta intakes was not included in the Alternatives Descriptions or Surface Water analysis in the EIR/EIS.</p> |
| 1563 | 124 | <p>In order to remedy this deficiency in the environmental analysis, the following is required:</p> <ul style="list-style-type: none"> * A description of at least two likely seismic scenarios that result in levee failures and disruption of water supplies for which the BDCP is intended to remedy in meeting the project objective. [Footnote 16: Note that it is unnecessary to examine levee failures during wet periods because such failures would either result in no loss of water supply or a very short disruption of water supply.] One of the scenarios could be from the material that was already provided to the BDCP Steering Committee on July 29, 2010 by the BDCP consultants (RMA, 2010) and at the direction of the BDCP proponents. A second scenario should show an extended period of water supply disruption in the No Action Alternative because Appendix 3E claims the disruption of supplies could last several years, and this is presumably the worst case scenario that the BDCP seeks to remedy. The revised analysis must evaluate such a seismic scenario to capture the full range of potential impacts of the alternatives. * A description of how each alternative would be operated in response to the seismic scenarios, including whether south Delta and/or north Delta exports would be shut off after a catastrophic seismic event and, if so, when they would resume exporting and under what criteria. The description should also include how upstream reservoirs would be operated during this time and whether they would hold water back for later export, release water to repel salinity intrusion, or follow some combination of these strategies. * An analysis of the impacts of those responses under the BDCP alternatives. This analysis must include the salinity levels at all drinking water intakes within the Delta and at all locations where existing salinity objectives are specified in the Bay-Delta Water Quality Control Plan; how salinity would change under the BDCP alternatives; the length of time | <p>Please refer to Appendix 3E in the EIR/EIS for information on potential operations under a levee failure situation. For more information on levee stability and seismic risk please see Master Response 16.</p> <p>The EIR/EIS did not address conditions under a levee failure because impact analysis was based on a long-term analysis and did not include emergency situations as too speculative. It also should be noted that the No Action Alternative and action alternatives assumed timely repairs of levees critical to maintain the Delta conditions in a manner similar to historic operations. Therefore, operations decisions to continue to operate the north Delta intakes was not included in the Alternatives Descriptions or Surface Water analysis in the EIR/EIS.</p> |

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| | | <p>required for salinity to return to levels predicted prior to the seismic event; the impacts to habitat area and survival for various species under the No Action Alternative and each project alternative; and the secondary impacts. (For example, elimination of exports through the south Delta would cause stagnation, resulting in algal blooms that would be exacerbated and extended by exporting water in the north Delta instead of halting all exports.)</p> <p>* A set of proposed mitigation measures for significant impacts. For example, a limitation on exports would reduce the length of time the reduction in habitat and Delta water quality impacts would occur.</p> <p>The BDCP Draft EIR/EIS must be revised to include a seismic analysis, identification of significant impacts, and proposed mitigation.</p> | |
| 1563 | 125 | <p>Improper and unsupported analysis in the BDCP Draft EIR/EIS underestimates water quality impacts.</p> <p>The BDCP Draft EIR/EIS fails to disclose the full extent of water quality impacts in the Delta that would affect municipal water suppliers, and the methodology used to evaluate water quality impacts is fundamentally flawed. These issues lead directly to a significant underestimation of water quality impacts for municipal water users in the Delta.</p> <p>Inadequate representation of drinking water intakes [Footnote 17]:</p> <p>On May 19, 2009, Contra Costa Water District submitted comments on the revised BDCP Notice of Preparation requesting that "the BDCP Draft EIR/EIS analyze the changes caused by the project on a daily basis for chloride, bromide, and organic carbon concentrations at all existing and planned drinking water intakes in the Delta" (CCWD, 2009b, Attachment A at p. 15 [see ATT 11]). But the BDCP Draft EIR/EIS fails to analyze water quality at all of the existing and planned drinking water intakes in the Delta, and it fails to disclose water quality impacts on a daily basis.</p> <p>The BDCP Draft EIR/EIS inappropriately assumes that water quality at one location is representative of other locations, stating "[f]or municipal intakes located in the Delta interior, assessment locations at Contra Costa Pumping Plant No. 1 and Rock Slough are taken as representative of Contra Costa's intakes at Rock Slough, Old River and Victoria Canal, and the assessment location at Buckley Cove is taken as representative of the City of Stockton's intake on the San Joaquin River." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-149 and 8-162. This assumption is unreasonable. The actual intakes and their "representative" locations are up to 17 river miles apart (Figure 2-1 [see ATT E]). Hydrodynamic and water quality conditions vary widely within the Delta; indeed, it is the difference in salinity at different locations in the Delta interior that drove CCWD's construction of its Old River intake and Middle River intake on Victoria Canal (collectively "Old and Middle River intakes"). Even intakes that are relatively close together such as CCWD's Old and Middle River intakes have very different water quality because of the complexity of the hydrodynamics in the Delta (CCWD and Reclamation, 2006, Exhibit ES-2 at p. ES-5).</p> <p>In fact, the differences in the quality of water at the "representative" sites in comparison to the actual intake locations were readily available to the BDCP consultants because the modeling that was used as the basis for the BDCP Draft EIR/EIS analysis includes results</p> | <p>Given the purposes of the assessment, the effects of the action alternatives at the locations assessed are considered representative of the effects in various portions of the Delta as a whole as compared to the Existing Conditions and No Action Alternative. Thus, although different locations can vary in their instantaneous water quality, effects of the action alternatives on water quality at locations assessed are considered representative of the degree and direction of water quality changes at other locations. This approach provides the analysis necessary to make impact conclusions and where necessary recommend mitigation measures to reduce significant impacts. Please refer to Master Response 14 related to modifications in the water quality analyses following publication of the 2013 Draft EIR/EIS. Please see Master Response 22 related to mitigation measures, Master Response 5 related to status of BDCP, and Master Response 14 related to Water Quality.</p> |

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| | | <p>for water quality constituents at both the "representative" sites and at the actual intake locations. This modeling was provided by the DWR to CCWD in 2013 (DWR, 2013b). Plots of salinity variation in time at each location illustrate that the "representative" sites are, in fact, not representative of the actual intake sites. For instance, in the No Action Alternative, the salinity at Buckley Cove is dramatically different than the salinity at the City of Stockton's intake (Figure 2-2 [see ATT F]). Similarly, in the No Action Alternative, salinity at the Rock Slough intake would at times be up to 800 microsiemens per centimeter greater than salinity at the Middle River intake; while at other times, salinity at the Middle River intake would be up to 200 microsiemens per centimeter greater than at the Rock Slough intake (Figure 2-3 [see ATT G]); neither the seasonal pattern nor the annual maximum and minimum values of salinity coincide temporally at these sites. Given the differences in salinity under the No Action Alternative between the "representative" sites and the actual intake locations, it is not appropriate to use the "representative" sites to assess impacts at drinking water intakes when modeling results for the actual intake sites are readily available.</p> <p>The differences in the quality of water at different locations in the Delta interior is partially due to the difference in the source of the water. For instance, some locations within the Delta interior are dominated by water that originated on the Sacramento River, while other locations are dominated by water from the San Joaquin River and still other locations are dominated by water from the Bay; the magnitude of local agricultural drainage also varies from place to place. The mixture varies spatially and temporally as river flows and tidal dynamics change throughout the seasons and between years. The modeling that was used as the basis for the BDCP Draft EIR/EIS analysis (DWR, 2013b) calculates the fraction of water that originates from the upstream rivers and the downstream bay at both the "representative" sites and at the actual intake locations. Plots of the percentage of water at each location that entered the Delta from the Sacramento River water illustrate that the "representative" sites are, in fact, not representative of the actual intake sites because the makeup of the water at each location is dramatically different. For instance, Figure 2-4 [see ATT H] shows that the location of the City of Stockton's intake often receives greater than 70% of its water from the Sacramento River, while Buckley Cove seldom receives any water from the Sacramento River.</p> <p>Since all of the BDCP alternatives propose either to divert Sacramento River water before it enters the central Delta (Alternatives 1 through 8) or to construct numerous barriers that would alter the mixing of river and bay waters (Alternative 9), the BDCP would impact the mixture of water at all locations within the interior Delta. Because of the complicated nature of the movement and mixing of waters within the Delta, the impact would vary by location. For this reason, it is not appropriate for the BDCP Draft EIR/EIS to use "representative" sites when information at actual intakes sites is readily available.</p> <p>[Footnote 17: While this section focuses on drinking water intakes, agricultural intakes in the Delta are also poorly represented in the BDCP Draft EIR/EIS analysis. For instance, DWR has agreements with North Delta Water Agency and East Contra Costa Irrigation District, which provide that DWR will maintain water quality at specified salinity levels at specified locations within the Delta, and further provide for the release of SWP water from storage, cessation of SWP diversions to storage, or cessation of SWP Delta exports should operation of the SWP degrade water quality near those locations. However, the</p> | |

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| | | BDCP Draft EIR/EIS fails to evaluate water quality at the specified locations and fails to disclose whether the BDCP would impact DWR's ability to maintain the required salinity levels.] | |
| 1563 | 126 | [ATT E: Figure 2-1. Drinking Water Intakes in the Delta. Map adapted from BDCP Draft EIR/EIS, Chap. 1, Figure 1-9] | Please see Master Response 14 related to water quality. |
| 1563 | 127 | [ATT F: Figure 2-2. Graph illustrating salinity at the City of Stockton's intake and Buckley Cove.] | Please see Master Response 14 related to water quality and salinity. Please see response to Comment 125. |
| 1563 | 128 | [ATT G: Figure 2-3. Graph illustrating salinity at Contra Costa Water District's Rock Slough, Old River, and Middle River intakes.] | Please see Master Response 14 related to water quality and salinity. Please see response to Comment 125. |
| 1563 | 129 | [ATT H: Figure 2-4. Graph illustrating percent of water at the City of Stockton's intake and Buckley Cove that originated on the Sacramento River.] | Please see Master Response 14 related to water quality and salinity. Please see response to Comment 125. |
| 1563 | 130 | <p>Degradation of Contra Costa Water District's delivered water quality:</p> <p>CCWD's long-term water quality goal is to deliver water with chloride concentrations of 65 milligrams per liter or less to its customers. This goal has been approved by the CCWD Board of Directors (CCWD, 1988) and is the basis of significant investments by CCWD customers. While the BDCP Draft EIR/EIS recognizes this goal (BDCP Draft EIR/EIS, Chap. 8 at p. 8-44), it fails to evaluate the impact on CCWD's ability to achieve this goal.</p> <p>CCWD diverts water from four intakes in the Delta -- Mallard Slough intake, Rock Slough intake, Old River intake and Middle River intake -- for treatment and/or delivery to CCWD's customers. Additionally, CCWD diverts water from two of its intakes -- Old River intake and Middle River intake -- to storage in the Los Vaqueros Reservoir, an off-stream reservoir that is owned and operated by CCWD and was built to improve water quality and provide drought and emergency storage for CCWD's customers. When Delta water quality is high (i.e. salinity is low), CCWD diverts Delta water directly for delivery to its customers and fills Los Vaqueros Reservoir with high quality Delta water for later use. When Delta water quality degrades (typically late summer and fall), CCWD releases some high quality water from storage to blend with water pumped directly from the Delta; blending the two water sources allows CCWD to meet its water quality goals. The reservoir is then re-filled when high quality water is available in the Delta again, typically during winter and spring. In this way, Los Vaqueros Reservoir allows CCWD to ameliorate the typical seasonal changes in Delta water quality and continually provide high quality water to its customers. CCWD integrates operation of all its facilities based on water quality in the Delta; as a result, information about the BDCP's effects on water quality at all of CCWD's intakes is necessary to evaluate the project's impacts on CCWD water supply and water quality.</p> <p>Modeling that was used as the basis for the BDCP Draft EIR/EIS analysis includes simulation of CCWD's operations as described above. In addition to reporting the quality of water at each of CCWD's intakes, the modeling reports the chloride concentration within Los Vaqueros Reservoir and the chloride concentration delivered to CCWD's</p> | Please refer to Master Response 14 related to modifications in the water quality analyses following publication of the 2013 Draft EIR/EIS. Please see Master Response related to mitigation measures, including impacts to chloride degradation at CCWD's intakes. |

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| | | <p>customers on a monthly basis. As mentioned above, this modeling was provided by DWR to CCWD (DWR, 2013b). Although the BDCP Draft EIR/EIS did not disclose these impacts, CCWD extracted the relevant information from the files provided by DWR to determine the impacts.</p> <p>As illustrated in Figure 2-5 [see ATT I], the percent of the time that CCWD could meet its water quality goal of 65 mg/L chloride concentration would be reduced in every alternative in comparison to the NEPA baseline. [Footnote 18: The modeling for the CEQA baseline was not provided to CCWD by DWR; therefore, the NEPA baseline is used for reference.] For instance, CCWD would be able to meet its water quality delivery goal 86% of the time under the No Action Alternative, but under Alternative 4 the delivery goal would be met only between 55% and 65% of the time, depending on the operational scenario (H1 through H4).</p> | |
| 1563 | 131 | [ATT I: Figure 2-5. Graph illustrating impact to Contra Costa Water District's delivered water quality.] | <p>Please see Master Response 14 related to water quality and salinity.</p> <p>Please see response to Comment 130.</p> |
| 1563 | 132 | <p>Improper reliance on long term averages:</p> <p>The BDCP Draft EIR/EIS uses long-term average salinity to evaluate the potential impacts of bromide and chloride. E.g. BDCP Draft EIR/EIS, Chap. 8 at p. 8-417 for Alternative 4. However, the long term average obscures and diminishes the magnitude of the project's impacts on Contra Costa Water District's water quality and supply.</p> <p>As discussed above, CCWD's operations are driven by salinity at its intakes. When salinity at its intakes is low, CCWD is able to fill Los Vaqueros Reservoir and meet demands at the desired water quality by directly diverting from the Delta. When salinity is high, CCWD releases low salinity water from the Los Vaqueros Reservoir to blend with higher salinity Delta diversions to deliver high quality water. The saltier the water, the more water that must be released from Los Vaqueros Reservoir.</p> <p>However, a reduction in salinity during low salinity conditions would not offset the effect caused by an increase in salinity in high salinity conditions. The use of long-term averages obscures this key fact and thus understates the negative salinity impacts that would result from the BDCP. For instance, reducing chlorides by 20 mg/L from 40 to 20 mg/L in March (when restrictions on CCWD's operations for fish protection prohibit filling Los Vaqueros Reservoir) would not compensate for increasing chlorides by 20 mg/L from 100 to 120 mg/L in August. This is because CCWD operations would not be affected by the decrease in salinity in March when the water is already very fresh and customer demand is being met by direct delivery of high-quality water from the Delta. However, operations would be negatively impacted by the increase in salinity in August when the water diverted at CCWD's intakes must be blended with fresher water released from Los Vaqueros Reservoir, and the increased salinity in the Delta would mean greater reservoir releases for blending with the saltier water at the intakes.</p> <p>The BDCP Draft EIR/EIS fails to consider these impacts: it simply averages salinity changes over the long-term, as if the 20 mg/L increase in salinity during high-salinity conditions would be offset by the 20 mg/L decrease in salinity during low-salinity conditions. But in fact the salinity decrease does not cancel out the negative effect resulting from the</p> | <p>The potential salinity water quality impacts were analyzed using DSM2 with a 15-minute time step. Please see Master Responses 14 for more information regarding the appropriateness of using model output to characterize water quality conditions on sub-daily timeframes.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A would result in substantially lesser water quality impacts to salinity-related parameters, including EC as compared to other action alternatives that include large-scale habitat restoration. 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> |

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| | | <p>salinity increase, so the approach in the BDCP Draft EIR/EIS fails to reveal, and does not evaluate, the true magnitude of the negative effects on CCWD water quality and water supply. The lack of the requested information regarding daily changes in water quality in the BDCP Draft EIR/EIS prevents an adequate analysis of impacts.</p> <p>DWR previously recognized that the number of days per year that usable water at a drinking water intake is available is a key standard for measuring the negative impacts caused by the operations of the SWP on the quality and quantity of CCWD's drinking water supplies. In 1967, DWR and CCWD executed an agreement regarding expected adverse impacts of the State Water Resources Development System, which includes the SWP, on CCWD (CCWD and DWR, 1967). CCWD uses the Mallard Slough intake for direct diversions to customers for municipal and domestic use. The agreement stipulates that water at that intake was usable for drinking water purposes for an average of 142 days per water year before construction and operation of the SWP, and provides for compensation to CCWD based on the measured reduction in the average number of days with usable water at the Mallard Slough intake due to operation of the SWP.</p> <p>The BDCP Draft EIR/EIS must evaluate daily changes in water quality at all four of CCWD's intakes, recognize the full extent of the project's significant impacts to CCWD's ability to meet its delivery goals, and identify and commit to measures to fully mitigate those impacts.</p> | |
| 1563 | 133 | <p>Fundamentally flawed operational modeling:</p> <p>Independent review of the computer modeling of California water operations that was used in the BDCP Draft EIR/EIS reveals that it is badly flawed. The reviewers concluded that the operational modeling, which serves as the basis for the analysis of impacts and benefits in the BDCP Draft EIR/EIS, "provides very limited useful information to understand the effects of the BDCP" (MBK Engineers and Steiner, 2014 at p. 1 [see ATT 38.1 and 38.2]). This modeling, and the impacts analysis based upon it, must be redone to reveal the true nature and extent of the BDCP's environmental impacts.</p> <p>Operations of the SWP and the CVP with and without the BDCP were analyzed for the BDCP Draft EIR/EIS using the CalSim II computer model, a standard tool for analysis of California water projects. [Footnote 19: Although CalSim II is a standard tool that has been used for analysis of numerous water projects, modifications to the model for the purposes of the BDCP were extensive and should be reviewed before accepted at face value. BDCP Steering Committee members, including CCWD, requested that the model undergo an independent review as early as 2009. (see e.g. CCWD, 2009a; California Farm Bureau Federation, 2010)]The CalSim II model is the foundational model for analysis of the BDCP; results from CalSim II are used for the analysis of effects on the ecosystem, natural communities, and covered species (Chapter 5 of the BDCP) and the impacts evaluation in the BDCP Draft EIR/EIS. To better understand the potential impacts of the BDCP, a consortium of stakeholders including Contra Costa Water District commissioned MBK Engineers and Daniel B. Steiner, independent consultants, to review the CalSim II modeling studies provided by DWR (MBK Engineers and Steiner, 2014).</p> <p>The independent review found that "[t]he BDCP Model contains erroneous assumptions, errors, and outdated tools, which result in impractical or unrealistic Central Valley Project (CVP) and State Water Project (SWP) operations. The unrealistic operations, in turn, do</p> | See responses to Comments 384 through 532 related to analysis completed by MBK. |

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| | | <p>not accurately depict the effects of the BDCP" (MBK Engineers and Steiner, 2014 at p. 1). To more accurately determine the potential impacts of the BDCP, MBK Engineers and Daniel Steiner revised the BDCP Model, coordinating with water project operators and modelers at Reclamation and DWR. They also provided a list of additional errors that were identified but have not yet been addressed (MBK Engineers and Steiner, 2014 at p. 7). The results of this work indicate that the BDCP Draft EIR/EIS operational modeling produces inaccurate and unreliable results and must be redone.</p> <p>The modeling that incorporates the revisions made by MBK Engineers and Daniel Steiner indicates that the action alternatives may have greater water quality impacts in the Delta than disclosed in the BDCP Draft EIR/EIS, for two reasons. First, the analysis done for the BDCP Draft EIR/EIS underestimates the portion of Delta exports that would be diverted at the new northern intakes, and overestimates the portion that would be diverted at the existing southern intakes (MBK Engineers and Steiner, 2014 at p. 27 and Technical Appendix pp. 66-72). Correcting this error results in greater stagnation and more poor-quality San Joaquin water and local agricultural drainage in the south Delta, with impacts at Delta drinking water intakes. Second, total Delta exports were underestimated in the analysis done for the BDCP Draft EIR/EIS (MBK Engineers and Steiner, 2014 at p. 27 and Technical Appendix pp. 51-55). [Footnote 20: This is in part due to re-operation of the SWP and CVP upstream reservoirs, which was improperly excluded from the BDCP analysis. See Section 1.1.2 of these comments for a discussion of this issue.] Correcting this error results in greater seawater intrusion into the Delta, with potential additional impacts at Delta drinking water intakes.</p> | |
| 1563 | 134 | <p>Location of SWP and CVP exports:</p> <p>Under the DWR Preferred Alternative, Alternative 4, the BDCP would construct and operate three additional water intakes in the north Delta that would be capable of diverting a combined 9,000 cubic feet per second (cfs) from the Sacramento River near Hood. The additional intakes would allow the SWP and CVP to choose the diversion location (north Delta or south Delta, or both north and south Delta) based on permit requirements and Delta conditions. Use of the north Delta intakes would reduce the amount of Sacramento River water that would enter the central, southern, and western Delta. The Sacramento River enters the Delta from the north, and the San Joaquin River enters the Delta from the south; these two rivers generally account for about 90% of the water within the Delta. The Sacramento River tends to have the greater flow and better water quality than the San Joaquin River. Exporting Sacramento River water at the north Delta intakes reduces the amount of high-quality water that reaches the central, southern, and western Delta and increases the amount of poor-quality San Joaquin River water. Furthermore, when south Delta diversions are reduced to a very low level (less than about 3,000 cfs), waters in the southern Delta tend to stagnate, and the local, poor-quality, agricultural drainage builds up in them.</p> <p>The BDCP acknowledges these water quality issues and the need to maintain pumping in the south Delta to maintain Delta water quality by stating that "BDCP operations criteria include a preference for south Delta pumping in July through September to provide limited flushing for improving general water quality conditions and reduced residence times." BDCP, Chap. 3 at p. 3.4-15. Similarly, the BDCP Draft EIR/EIS states that</p> <p>"The objectives of the operations for Delta water quality and residence criteria,</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>Alternatives 1 through 9, as presented in the DEIR/DEIS and the RDEIR/SDEIS, assume use of a portion of Sacramento River inflow to maintain south Delta water quality in summer months, as described in this comment. In the Final EIR/EIS, the CALSIM II model was modified to simulate Alternative 4A to explicitly provide a preference for use of the south Delta intakes for up to 3,000 cfs in the summer months.</p> |

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| | | <p>summarized below, are to (1) maintain a minimum level of pumping from the south Delta during summer to provide limited flushing to reduce residence times and improve water quality; (2) provide salinity improvements for municipal, industrial, and agricultural water users; and (3) allow operational flexibility during other periods to operate either north or south diversions based on real-time assessments of benefits to fish and water quality.</p> <p>" * July-September. Preferentially operate SWP and CVP south Delta export facilities up to 3,000 cfs of diversions before diverting from north Delta intakes.</p> <p>" * October-June. Preferentially operate north Delta intakes."</p> <p>BDCP Draft EIR/EIS, Chap. 3 at p. 3-188. The quote above is in the description of Scenario A operations, and is referenced for Scenario B (id. at p. 3-192), Scenario C (id. at p. 3-193), Scenario E (id. at p. 3-196), and Scenario H (id. at p. 3-209) and restated for Scenario F (id. at p. 3-199). These criteria imply that the south Delta intakes would export up to 3,000 cfs in July through September before the north Delta intakes are operated.</p> <p>However, the BDCP Draft EIR/EIS contradicts itself by stating that for Scenarios A, B, C, E, F, and H, "[t]he existing south Delta diversion would only operate on its own when the north Delta diversion is nonoperational during infrequent periods for maintenance or repair." (Id. at p. 3-16.) Similarly, despite the acknowledgement of water quality concerns quoted above, the BDCP neglects water quality, stating that real-time operations would "be managed to distribute pumping activities amongst the three north Delta and two south Delta intake facilities to maximize both survival of covered fish species in the Delta and water supply." BDCP, Chap. 3 at p. 3.4-28 (emphasis added).</p> <p>The CalSim II model that is the basis for the BDCP Draft EIR/EIS operations analysis further confuses the issue of preferential use between the north Delta intakes and south Delta intakes in two ways: (1) the model always prioritizes diversions from the north Delta intakes (i.e. there is no priority built into the model for the south Delta location in July through September as discussed above), and (2) an error in the model restricts north Delta exports beyond what is described in the BDCP project description (MBK Engineers and Steiner, 2014, Technical Appendix at pp. 27-30 [see ATT 38.2]). MBK Engineers revised the modeling to impose the July through September preference for the south Delta intakes quoted above and corrected the error that unnecessarily restricted north Delta exports to provide a more accurate depiction of the operations.</p> <p>The net result of the corrections to the logic errors for choosing to divert from the north or the south is that more northern diversions, and less southern diversions, would be made than shown in the BDCP Draft EIR/EIS. The corrected CalSim II model indicates that on average the amount of water diverted through the existing south Delta facilities would be about 460 thousand acre-feet per year less than what is projected in the BDCP Draft EIR/EIS for the DWR Preferred Alternative, leading to more poor-quality San Joaquin River water and local agricultural drainage at Contra Costa Water District's intakes as well as greater stagnation and its attendant water quality impacts in the south Delta.</p> | |
| 1563 | 135 | <p>Total Delta exports and Delta outflow:</p> <p>In addition, MBK Engineers and Steiner [see ATT 38.1 and 38.2] determined that</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the</p> |

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| | | <p>"[o]perating rules used in the BDCP Model, specifically regarding Alternative 4, result in impractical or unrealistic CVP and SWP operations. Reservoir balancing rules cause significant drawdown of upstream reservoirs during spring and summer months while targeting dead pool level in San Luis from September through December resulting in artificially low Delta exports and water shortages. CVP allocation rules are set to artificially reduce south of Delta allocations during wetter years resulting in underestimates of diversions at the NDD [north Delta diversions] and the SDD [south Delta diversions]. Operating rules for the Delta Cross Channel Gate do not reflect how the gates may be operated in "With Project" conditions.</p> <p>"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 other definitive rules. This attempt to specify (i.e., code) the logic sequence and relative weighting so that a computer can simulate "expert judgment" of the human operators is a critical element to the CalSim II model. In the BDCP version of the CalSim II model, some of the operational criteria for water supply allocations and existing facilities such as the Delta Cross Channel and San Luis Reservoir are inconsistent with real-world conditions.</p> <p>"The BDCP Model, as modified by the Reviewers [MBK Engineers and Daniel Steiner], corrected some of the inconsistencies between the operational criteria in the BDCP Model and real-world conditions, and confirmed these changes with CVP and SWP operators. By correcting the operational criteria, the modified BDCP model (Independent Model) output is more accurate and consistent with real-world operational objectives and constraints."</p> <p>The corrected CalSim II model indicates that Delta outflow would decrease by about 200 thousand acre-feet per year on average compared to the amount indicated in the BDCP Draft EIR/EIS for the DWR Preferred Alternative, potentially leading to greater seawater intrusion and higher salinity in the Delta. Water quality, particularly salinity, is a key concern for Contra Costa Water District and poor water quality in the Delta limits Contra Costa Water District's water supply and the quality of the water delivered to customers.</p> | <p>2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. See responses to Comments 384 through 532 related to analysis completed by MBK.</p> |
| 1563 | 136 | <p>Net result of corrections to the operations model:</p> <p>In summary, as noted in other sections of these comments, the BDCP Draft EIR/EIS modeling indicates that the DWR Preferred Alternative could:</p> <ul style="list-style-type: none"> * increase salinity in the Delta, * increase concentrations of taste- and odor-causing algae in the south Delta, * increase bromide and organic compounds in the Delta which could in turn increase cancer-causing disinfection byproducts in water served from the Delta, and * limit Contra Costa Water District's water supplies. <p>The corrected CalSim II modeling done by MBK Engineers and Daniel Steiner indicates that these problems could be worse than disclosed in the BDCP Draft EIR/EIS. Thus the BDCP Draft EIR/EIS environmental analysis does not present a complete and accurate</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives, Master Response 14 regarding water quality and salinity.</p> <p>As indicated in the tables in Appendix 5A, Section C, of the EIR/EIS, water deliveries to CVP water contractors in the San Francisco Bay Area Region (including Contra Costa Water District) would be similar or greater than Existing Conditions under all action alternatives; and similar or greater than the No Action Alternative under the action alternatives, except Alternatives 6, 7, and 8. As described in Chapter 5 of the EIR/EIS, the water supply impact analysis is based upon changes in water deliveries based upon SWP and CVP operations. The potential impacts and associated mitigations related to changes in water deliveries are presented in Appendix 5B, Response to Reduced South of Delta Water Supplies, and within applicable resource chapters, such as Chapter 14, Agricultural Resources.</p> |

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| | | picture of the potential impacts of the BDCP. The operations modeling in the BDCP Draft EIR/EIS should be redone, as should the impacts analyses that are based on the results of the flawed operations modeling. | <p>As noted in the comment, Chapter 8 in the EIR/EIS identifies significant impacts to water quality for some project alternatives, including salinity-related constituents, Microcystis, and organic carbon, and mitigation is provided to lessen impacts to these constituents. Alternative 4A (and 2D, and 5A) would have less than significant impacts to Microcystis and organic carbon. Alternative 4 (and 2D and 5A) also would have a less than significant impact to EC with implementation of mitigation.</p> <p>Please see Master Response 28 for more information regarding operational scenarios and Master Response 5 for more information regarding compliance with ESA. Please also refer to Master Response 14.</p> |
| 1563 | 137 | <p>Unwarranted use of a limited time period for water quality analysis:</p> <p>The BDCP Draft EIR/EIS analysis of project operations is based on modeling studies that span 82 years of the hydrologic record. However, the analysis of water quality impacts is based on modeling of a much shorter period of 16 years. This shortened analysis period is not adequate for an assessment of the project's water quality impacts.</p> <p>The BDCP Draft EIR/EIS states that a full 82-year evaluation of water quality impacts is unnecessary because (1) the distribution of hydrological conditions in the 16-year period that was used for the water quality impacts analysis is similar to the full 82-year period, (2) the water quality modeling done with the Delta Simulation Model 2 (DSM2) is sufficiently detailed that a longer period will not provide more details, and (3) an 82-year analysis would not be more accurate than the 16-year analysis. BDCP Draft EIR/EIS, Appendix 5A, Section D.12 at pp. 5A-D207 - 5A-D208. None of these arguments passes muster. Eighty-two years are required for an adequate evaluation of water quality for the same reasons that 82 years are used to simulate operations and determine water supplies.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A, which do not include a HCP process, are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> |
| 1563 | 138 | <p>Failure to represent the 82-year period:</p> <p>The argument that the 16-year period has hydrological conditions similar to the 82-year period is refuted by the table on page 5A-D212 of the BDCP Draft EIR/EIS, Appendix 5A, Section D.12, which indicates that the 16-year period includes a greater fraction of critically dry years: 31% of the years in the 16-year period are critically dry, compared to 15% of the years in the 82-year period. During critically dry years, the State Water Project and Central Valley Project are operated to meet salinity requirements for many months out of the year. By definition, when Delta salinity is at its maximum allowed value, the SWP and CVP are restricted from creating impacts. Because there are a disproportionate number of critically dry years in the 16-year period, the salinity impacts that would occur are underestimated.</p> <p>Furthermore, results of the 82-year operations modeling illustrate that the limited 16-year period used for the water quality modeling is not representative of the full 82-year period. The operations model results include calculated values for Delta outflow, which is a reliable indicator of the extent of seawater intrusion into the Delta. Decreases in Delta outflow indicate likely increases in Delta salinity; the BDCP-caused decreases in Delta outflow are greater on average in the 82-year period, so the salinity impacts would be expected to be greater as well.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A, which do not include a HCP process, are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>The EIR/EIS used the best available tools that are used by state and federal agencies. The full set of inputs needed for these tools are limited to 82-year (Water Years 1922 – 2003) at the time the analysis for the EIR/EIS was performed. The DSM2 analysis was limited to a 16-year analysis. Section D.12 of the Appendix 5A in the draft EIR/EIS discloses potential differences between the 16-year versus 82-year DSM2 simulations. As noted in this comment, given the 16-year simulation period used for the DSM2 modeling is drier than the 82-year period, the water quality impact analyses would be more conservative, and represents conditions similar to those found over the full 82-year period.</p> |

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| | | <p>Table 2-2 below [see ATT J] shows changes that the BDCP causes in average Delta outflow for the 16-year and 82-year periods; the 16-year results are calculated from BDCP modeling that the Department of Water Resources provided to CCWD (DWR, 2013b) and the 82-year results are from the BDCP Draft EIR/EIS, Chapter 5, Table 5-9.</p> <p>Both the 16-year and 82-year periods show reductions in average outflow caused by the BDCP, but the average changes in the 82-year period are significantly larger. Thus, the shorter period is not simply an unbiased sample of the longer period, and outflow results from the more statistically robust longer period indicate that the project would cause greater increases in salinity than those found in the 16-year analysis. In fact, the BDCP Draft EIR/EIS acknowledges that "DWR staff found that there is at times greater increases in chlorides in the 82-year simulation period than there are in the 16-year period when looking at the average monthly results." BDCP Draft EIR/EIS, Appendix 5A, Section D.12 at p. 5A-D207. The use of the 16-year analysis is inadequate.</p> | |
| 1563 | 139 | [ATT J: Table 2-2. Average change in Delta outflow compared to the No Action Alternative.] | It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A, which do not include a HCP process, are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives. Please see response to Comment 138. |
| 1563 | 140 | <p>Level of detail:</p> <p>While the DSM2 water quality model provides detailed information, it only provides this detailed information for the period of time that is modeled. Further, detailed results for a limited time period that is not representative of the full range of conditions under which the BDCP would operate do not provide adequate disclosure of the full range of impacts resulting from the BDCP. As discussed above, reliance on the 16-year modeling period results in a significant underestimation of the project's adverse salinity impacts, regardless of how detailed the 16-year modeling is.</p> <p>The full statistical analysis provided by the 82-year period is necessary for water quality impacts to be evaluated properly. That is true in general, and is necessary in particular for Contra Costa Water District to understand the impacts of the BDCP on CCWD's water quality and water supply. As noted in the BDCP Draft EIR/EIS, an 82-year analysis is required to adequately evaluate operations of CCWD and its Los Vaqueros Reservoir. BDCP Draft EIR/EIS, Appendix 5A, Section D.12 at p. 5A-D208. This period of analysis similarly is needed to provide a complete and accurate picture of potential water quality impacts.</p> <p>Comparison of the accuracy of an 82-year analysis with that of a 16-year analysis:</p> <p>An 82-year period is used to analyze project operations, but the BDCP Draft EIR/EIS argues that nothing is gained when the same type of analysis is used for DSM2 water quality analysis. With regard to operations analysis, the document states that, "CalSim II looks at system performance over larger time scales and thus 82 years of data enhances the evaluation process." BDCP Draft EIR/EIS, Appendix 5A, Section D.12 at p. 5A-D209.</p> | <p>The 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).</p> <p>During preparation of the EIR/EIS a technical memorandum was prepared to compare and contrast the DSM2 planning simulations performed over the 16 year period (WY 1976 – 1991) versus the simulations performed over the 82 year period (WY 1922 – 2003). This technical memorandum is included in Appendix 5A, Section D.12, DSM2 16 Year Planning Simulation versus 82 Year Planning Simulation, in the EIR/EIS.</p> <p>Please see Master Response 14 related to Water Quality and Master Response 30 related to Modeling.</p> |

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| | | <p>However, for water quality impacts analysis, the BDCP Draft EIR/EIS argues that 82-year simulations are not more accurate than 16-year simulations because the hydrologic data (e.g. precipitation) is less reliable for approximately the first 30 years of the 82-year simulation. BDCP Draft EIR/EIS, Appendix 5A, Section D.12. This fact is not in dispute. However, the purpose of the modeling is not to recreate historical conditions, but rather to evaluate how the project would impact the environment over a wide range of hydrological conditions. The full 82-year hydrology is deemed necessary for the determination of water supply, Delta outflow, and effects on fisheries; the same level of accuracy is needed for water quality determinations so that an adequate evaluation of impacts can be made, including an adequate statistical assessment of impacts to CCWD's operations, as well as any necessary mitigation.</p> <p>Feasibility of an 82-year analysis of water quality impacts:</p> <p>The BDCP Draft EIR/EIS acknowledges that it only takes one day to simulate the full 82-year period in DSM2 and that this amount of time is not a hindrance to completing the analysis. "The concern is that the additional years would not add value to the analysis in all cases, so that the time added to run and process the results, even if not overly burdensome, would not be justified." BDCP Draft EIR/EIS, Appendix 5A, Section D.12 at p. 5A-D216. Given the inadequacy of the results of the 16-year analysis, including the underestimation of water quality impacts, the additional time required for the 82-year simulations is justified by the need for a full analysis of BDCP impacts.</p> <p>To provide a correct and adequate disclosure of the impacts of the action alternatives, water quality for the full 82 years must be modeled and the results presented and analyzed on a daily basis so that the full impacts to CCWD and its water quality and water supply can be analyzed.</p> | |
| 1563 | 141 | <p>Underestimation of impacts due to the methodology used to simulate tidal habitat restoration (Conservation Measure 4):</p> <p>The Delta Simulation Model 2 (DSM2) is the standard tool for analyzing Delta water quality effects, particularly salinity effects, of changes in water operations. Its use is appropriate for analysis of the water quality impacts of CM1, although the analysis in the BDCP Draft EIR/EIS did not use model runs of sufficient length. However, use of DSM2 for analysis of the water quality impacts of tidal habitat restoration is problematic. [Footnote 21: Although DSM2 is a standard tool that has been used for analysis of numerous water projects, modifications to the model for the purposes of the BDCP were extensive and should be reviewed before accepted at face value. BDCP Steering Committee members, including CCWD, requested that the model undergo an independent review as early as 2009. (e.g. CCWD, 2009a; California Farm Bureau Federation, 2010)]</p> <p>Habitat restoration may include the flooding of 65,000 acres of currently dry land. Once flooded, the water depth in the habitat would vary by location; some areas would become dry at low tide and others would remain flooded at all times. The movement and mixing of waters in this type of environment is best described by sophisticated, multi-dimensional models. Since the proposed conditions are hypothetical, a model cannot be calibrated to historical data and instead must rely on its ability to accurately resolve the multi-dimensional physical processes. However, there is a trade-off between the accuracy of the models and the time it takes to process simulations. Evaluation of the</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A, which do not include a HCP process, are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>The Delta Science Independent Review Panel reviewed the DSM2 model approach, including the modifications for tidal wetlands restoration. The DSM2 model was used in a comparative manner to understand the relative changes between Alternatives 1 through 9 and the Existing Conditions and the No Action Alternative.</p> |

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| | | <p>BDCP requires analysis of hydrodynamics and water quality in the Delta resulting from the proposed physical and operational changes over 82 years.</p> <p>DSM2 is a relatively fast model and is capable of performing such long simulation runs; however, DSM2 is not able to simulate multi-dimensional features such as tidal marshes. Therefore, to incorporate the habitat restoration, DSM2 was recalibrated using limited results from the more accurate but more time-intensive two-dimensional RMA Bay-Delta Model, which can simulate the two-dimensional processes. Due to the fundamental limitations of the DSM2 model, the modifications made to represent tidal habitat were inappropriate and resulted in an underestimation of impacts.</p> | |
| 1563 | 142 | <p>The BDCP Draft EIR/EIS acknowledges the underestimation of salinity impacts associated with habitat restoration, stating that "implementation of tidal habitat restoration under CM4 would increase the tidal exchange volume in the Delta, and thus may contribute to increased chloride concentrations in the Bay source water as a result of increased salinity intrusion. Consequently, while uncertain, the magnitude of chloride increases may be greater than indicated herein and would affect the western Delta assessment locations the most which are influenced to the greatest extent by the Bay source water." BDCP Draft EIR/EIS, Chap. 8 at p. 8-424 (emphasis added). However, this vague acknowledgment is not sufficient to disclose the magnitude of the increases resulting from the project. The analysis therefore does not disclose the true extent of the impact, which makes it impossible to assess what mitigation is necessary.</p> <p>Additionally, DSM2 cannot simulate wetting and drying of intertidal habitat due to limitations of the model. BDCP Draft EIR/EIS, Appendix 5A-D4 at p. 6. In an attempt to work around this fundamental limitation, the elevation of restored tidal marsh was represented as lower than the lowest water level that can occur in the region; the modeling performed for the BDCP assumed the elevation to be -10.1 feet. As the BDCP Draft EIR/EIS recognizes: "The downside of this assumption is that the volume of the water in the reservoir could potentially be higher than what in reality should be. This could potentially cause increased dilution of the salinity in the [Restoration Opportunity Areas] ROAs." BDCP Draft EIR/EIS, Appendix 5A, Section D, Attachment 4 at p. 6. This acknowledgement confirms that the salinity impacts of the habitat restoration projects are underestimated due to simplified modeling assumptions, specifically in the case noted by over-dilution of salinity (and other constituents) in the model compared to what would be expected in reality.</p> <p>The inaccurate representation of water depth also affects the ability of DSM2 to accurately determine temperature impacts. The thermal mass of the deeper water bodies that were assumed, as well as the penetration of solar energy through a smaller portion of the assumed water column, prevents the disclosure of increases in water temperature during hot weather that would in fact be seen in the shallow tidal areas that are planned for the BDCP (Fischer et al., 1979 at pp. 162-166). Sixty five thousand acres of hot, shallow marshland would provide ideal breeding grounds for algae in the Delta.</p> <p>Improved modeling will be required to determine the full range of impacts that could result from the BDCP, so that the public and decision-makers are fairly apprised of the project's negative environmental consequences and appropriate mitigation is provided.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A, which do not include a HCP process, are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives and Master Response 14 related to Water Quality.</p> |

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| 1563 | 143 | <p>Mathematically flawed mass balance analysis of water quality impacts:</p> <p>A mass balance method applied to water quality modeling results was used for analysis of many water quality constituents. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-141 to 8-172. Such an approach is based upon conservation of mass, a fundamental principle of physics that states that mass is neither created nor destroyed. There are, however, a couple of problems with the analysis as presented. First, it is mathematically incorrect: the approach used does not in fact conserve mass. Second, it bases calculations on long-term average monthly concentrations of constituents in the waters that flow into the Delta, ignoring the inter-annual variability that is the hallmark of Delta water quality. For chloride and bromide, constituents of particular concern for Delta drinking water, methods that do not suffer from these deficiencies are available and should be used.</p> <p>First, the mass balance approach is fundamentally flawed in that it does not conserve mass as its name suggests. Sources of water flowing into the Delta that are accounted for in the water quality modeling are river flows from the north, east, and south; seawater from the west; and net flows off the land within the Delta itself. At a given location in the Delta, the sum of the contributions from each of these sources should equal 100% of the water; if it does not, mass is not conserved. It is this fact, together with data on the concentrations of pollutants in the source waters, that allows calculation of the pollutant concentrations at that location. However, because of faulty methodology or errors in implementation, incorrect sums of source water contributions are presented in the BDCP Draft EIR/EIS. For example, in the calculations of selenium concentration at various locations in the Delta, the percentages of inflow from all sources often do not sum to 100%. See, for example, Table M-2 in the BDCP Draft EIR/EIS, Appendix 8M1 at p. 8M-17. Because of this error, the values for selenium concentrations are underestimated.</p> <p>Second, the mass balance method used for the analysis in the BDCP Draft EIR/EIS relies on long-term monthly average concentrations of water quality constituents in the source waters, based on monitoring data where it is available and on estimations where it is not. The use of long-term monthly average values removes inter-annual variability in the source waters, which is especially important in the western Delta and the San Joaquin River, and hence masks the marked inter-annual variability in interior Delta water quality. This approach is particularly problematic -- and should not be used -- for salinity, including chloride and bromide, which is subject to strong inter-annual variation in the western Delta.</p> <p>For bromide and chloride, constituents of particular importance for Delta drinking water, the results of the water quality modeling can be used directly to analyze impacts, without layering on the cumbersome and inaccurate calculations required by the mass balance approach. These constituents have strong statistical relationships to electrical conductivity, which is an output of the model. The "alternative modeling approach" discussed in the BDCP Draft EIR/EIS, Chap. 8 at pp. 8-134 to 8-135, is based on this fact, but it should be modified to account for site-specific conditions. One way to do this would be to use the following formula:</p> $CI = f_{\text{sub(BAY)}} * (0.285 * EC - 50) + (1 - f_{\text{sub(BAY)}}) * (0.15 * EC - 12)$ <p>where</p> | <p>The first quarter inflow percentage (finger printing data) values reported in Table M-2 IN Appendix 8M, Selenium, in the 2013 Draft EIR/EIS do not add up to 100 percent as noted by the commenter. However, this is an aberration due to the resulting finger printing percentages in the first month (Jan 2000) of the DSM2 simulation as the model is ramping up from the initial conditions. For the other quarters in 2000, 2005 and 2007, the inflow percentages add up to 100% as expected.</p> <p>Chloride and bromide were modeled by both mass-balance approach and a regression relationship using EC modeling results from DSM2.</p> <p>Please see Master Response 4 related to development of the alternatives and Master Response 14 related to Water Quality.</p> |

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| | | <p>Cl = chloride concentration</p> <p>f sub(BAY) = the fraction of water originating at the western boundary</p> <p>EC = electrical conductivity</p> <p>The results generated from the mass balance approach used in the BDCP Draft EIR/EIS do not provide a realistic assessment of the project's impacts. Where a better approach is available, as it is for chloride and bromide, it should be employed. Where a mass balance approach must be used, the errors and deficiencies in the BDCP Draft EIR/EIS analyses should be corrected.</p> | |
| 1563 | 144 | <p>Flawed selenium modeling.</p> <p>The BDCP Draft EIR/EIS recognizes that "[s]elenium is a constituent of concern in the Delta, the lower San Joaquin River, and San Francisco Bay for potential effects on water quality, aquatic and terrestrial resources, and (indirectly) human health. Because of the known effects of selenium bioaccumulation from aquatic organisms to higher trophic levels in the foodchain, the wildlife habitat and rare, threatened, or endangered species beneficial uses are the most sensitive receptors to selenium exposure." BDCP Draft EIR/EIS, Chap. 8 at p. 8-91. Due to the bioaccumulative properties of selenium, the BDCP Draft EIR/EIS purports to analyze selenium "in detail". BDCP Draft EIR/EIS, Chap. 8 at p. 8-129. However, there is a fundamental flaw in the selenium models presented in the BDCP Draft EIR/EIS, Appendix 8M1, which fails to incorporate the residence time into the analysis and thus underestimates the impacts of the BDCP.</p> <p>Selenium models include a parameter (Kd) that describes the ratio of the amount of selenium that is in particulate form to the amount that is dissolved in the water column. The BDCP Draft EIR/EIS states that</p> <p>"[Kd] can vary widely among hydrologic environments and potentially among seasons (Presser and Luoma 2010). In addition, other factors such as speciation, residence time, and particle type affect Kd. Residence time of selenium is usually the most influential factor on the conditions in the receiving water environment. Short water residence times (e.g., streams and rivers) limit partitioning of selenium into particulate material. Conversely, longer residence times (e.g., sloughs, lakes, estuaries) allow greater uptake by plants, algae, and microorganisms."</p> <p>BDCP Draft EIR/EIS, Appendix 8M at p. 8M-3 (emphasis added).</p> <p>Analysis of the DWR Preferred Alternative indicates that residence time in the south Delta would increase by as much as 34-36 days under Scenario H4. BDCP, Appendix 5.C, Attachment 4 at p. 5C.4-91. Since residence time is the most influential factor on the value of Kd, the selenium models should have varied Kd in response to changes in residence time. However, the BDCP Draft EIR/EIS used the same value of Kd for the baseline as well as the action alternatives. By not taking into account the changes in residence time, the BDCP Draft EIR/EIS underestimates the amount of selenium that is bioavailable in the action alternatives, and thus underestimates the impacts of selenium on aquatic and terrestrial resources.</p> | <p>The assessment of selenium was updated in the RDEIR/SEIS and this Final EIR/EIS to address these and other issues. Please see Chapter 8 in the Final EIR/EIS and Master Response 14 for more information regarding water quality and salinity. Please see Master Response 4 related to development of the alternatives.</p> |

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| 1563 | 145 | <p>The BDCP Draft EIR/EIS fails to disclose significant water supply impacts.</p> <p>The BDCP Draft EIR/EIS does not adequately disclose, evaluate or mitigate the significant impacts resulting from the proposed project on the water supplies of the Contra Costa Water District (CCWD). These are environmental impacts that require analysis and mitigation under CEQA and NEPA. CCWD serves as the sole source of drinking water for 500,000 people and the BDCP would have a profound negative effect on CCWD's ability to meet its adopted goals for delivering high-quality drinking water to its customers during droughts, emergencies and conditions when water in the Delta contains higher levels of salinity. All the adverse effects caused by the BDCP on the physical environment -- including effects on the physical water supply facilities and operations that CCWD uses to serve its many customers -- need to be addressed in the BDCP EIR/EIS.</p> <p>The analysis of water supply effects in the BDCP Draft EIR/EIS is deficient and incomplete, and must be redone.</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP and Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include large-scale habitat restoration or will result in an HCP.</p> <p>Please see water quality analyses results in Chapter 8 and the associated appendices and Master Response 14.</p> |
| 1563 | 146 | <p>Impacts to water quality, drought and emergency water supplies stored in Contra Costa Water District's Los Vaqueros Reservoir are not disclosed.</p> <p>The first flaw in the water supply analysis is that the BDCP Draft EIR/EIS fails to disclose impacts to CCWD's Los Vaqueros Reservoir. This water supply impact affects CCWD's ability to deliver high-quality drinking water to its customers.</p> <p>The Los Vaqueros Reservoir is an off-stream reservoir that is owned and operated by CCWD; its purposes are to improve water quality and provide emergency and drought storage. CCWD fills Los Vaqueros Reservoir by pumping water from the Delta when Delta water quality is high (i.e., when salinity is low) and stores the high-quality water in Los Vaqueros Reservoir for later use. When Delta water quality degrades (typically late summer and fall), CCWD releases some high-quality water from storage to blend with water pumped directly from the Delta; blending the two water sources allows CCWD to meet its water quality goals. [Footnote 22] The reservoir is then re-filled when high-quality water is available in the Delta again, typically during winter and spring. In this way, Los Vaqueros Reservoir allows CCWD to ameliorate the typical seasonal changes in Delta water quality and continually provide high-quality water to its customers. Additionally, the water stored in Los Vaqueros Reservoir serves as an emergency and drought water supply should CCWD's Delta water supply be limited or unavailable.</p> <p>The Los Vaqueros Reservoir is operated in a manner consistent with the Biological Opinions for the reservoir, which require fish protection measures, including an annual 75-day to 90-day "no-fill" period and a concurrent 30-day "no-diversion" period. During the no-fill period, CCWD does not fill the reservoir, which limits CCWD's diversions from the Delta to the amount necessary to meet its customer demand. During the no-diversion period, CCWD ceases all diversions from the Delta; customer demand during the no-diversion period is met through releases from the reservoir.</p> <p>Filling Los Vaqueros Reservoir with high-quality Delta water is necessary for CCWD to provide these water quality and emergency storage benefits and fish protections. CCWD fills Los Vaqueros Reservoir by diverting water from the Delta at its screened Old and Middle River intakes, under its own water right permit and under its CVP contract.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> |

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| | | <p>[Footnote 23]</p> <p>The BDCP would adversely affect CCWD's water supplies stored in its Los Vaqueros Reservoir by: (1) reducing the availability of high quality water at CCWD's intakes; (2) reducing the amount of time when CCWD can fill Los Vaqueros Reservoir under its own water right; and (3) reducing the amount of the time when CCWD can fill Los Vaqueros Reservoir with CVP water. Each of these impacts is discussed below.</p> <p>Significant adverse impacts to Los Vaqueros Reservoir storage from degradation in water quality.</p> <p>The BDCP Draft EIR/EIS identifies a number of significant water quality impacts resulting from the proposed project, including increased chloride concentrations. E.g., BDCP Draft EIR/EIS, Chap. 8 at pp. 8-423 to 8-429. However, the document does not disclose or evaluate the full nature of this significant impact in that there is no consideration of how the changes in water quality would affect CCWD's water supplies by (1) reducing CCWD's ability to fill Los Vaqueros Reservoir with high-quality Delta water and (2) increasing demand on Los Vaqueros Reservoir to compensate for the reduction in Delta water quality caused by the BDCP.</p> <p>The BDCP reduces CCWD's ability to fill Los Vaqueros Reservoir with high-quality water. To achieve CCWD's long-term water quality goal of delivering water with no more than 65 mg/L of chloride to its customers, Los Vaqueros Reservoir is generally filled with water with less than 50 mg/L of chloride. This target ensures that salinity in Los Vaqueros Reservoir remains low enough to provide adequate dilution of seasonal peaks in Delta salinity. Reducing the amount of time when the chloride concentration is below 50 mg/L at CCWD's Delta intakes reduces the amount of time Los Vaqueros Reservoir can be filled, which is an adverse impact on CCWD's water supply.</p> <p>The water quality impacts of the BDCP increases demand on Los Vaqueros Reservoir. When water in the Delta near CCWD's intakes is salty, CCWD releases high-quality (low-salinity) water from Los Vaqueros Reservoir to blend with the relatively high-salinity water diverted directly from Delta channels -- chloride concentrations near CCWD's intakes can be as high as 275 mg/L, depending on season, annual hydrology, and discharges to and exports from the Delta. Blending with high-quality stored water allows CCWD to deliver high-quality water to its customers throughout the year.</p> <p>The amount of water from Los Vaqueros Reservoir necessary for blending depends on both the quality of water in the reservoir and on the quality of water in the Delta near CCWD's intakes. [Footnote 24] The BDCP would degrade water quality both in the reservoir and at CCWD's intakes. The quality of the water stored in Los Vaqueros Reservoir depends on the water quality in the Delta near CCWD's intakes at times when CCWD can fill Los Vaqueros Reservoir. By increasing chloride concentration at times when CCWD is filling the reservoir in accord with the filling goal described above (e.g. increasing chloride concentration within the Delta from 35 mg/L to 45 mg/L), the BDCP would increase the chloride concentration within Los Vaqueros Reservoir, thus reducing the blending power of the water in the reservoir and necessitating greater releases of blending water from storage to dilute the salinity of water that is delivered to CCWD's customers. Furthermore, by increasing the amount of time that intake chloride concentrations exceed CCWD's water quality delivery goal, and by increasing the amount</p> | |

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| | | <p>by which intake chloride concentrations exceed the delivery goal, the BDCP further increases the demand on Los Vaqueros Reservoir for blending water releases.</p> <p>With the significant impacts to chloride concentration identified in the BDCP Draft EIR/EIS (Impact WQ-7), storage in CCWD's Los Vaqueros Reservoir would be reduced due to inability to fill with high-quality water and increased demand for stored water, as discussed above. As more releases from the reservoir are required to meet water quality goals, less water is available for emergency supplies. As documented in the permits for the Los Vaqueros Reservoir, during wet, above-normal and below-normal years, 70 thousand acre-feet of water is designated as emergency storage; during dry and critical years, 44 thousand acre-feet is designated as emergency storage (e.g. NMFS, 1993; USFWS, 1993). When the reservoir reaches emergency storage, CCWD modifies its operations to retain as much water for an emergency as possible. The lower reservoir storage levels and poorer water quality resulting from the BDCP would reduce the amount of water available for blending and drought relief before emergency storage levels are met, and could result in CCWD having to reduce emergency storage levels in order to meet system demands with acceptable quality water. This could significantly limit CCWD's resiliency during a prolonged drought or a catastrophic event.</p> <p>BDCP Draft EIR/EIS modeling results.</p> <p>Although the BDCP Draft EIR/EIS does not disclose the impacts to Los Vaqueros Reservoir, the modeling that was used as the basis for the BDCP Draft EIR/EIS analysis includes simulation of CCWD's operations, and reports the amount of water stored in Los Vaqueros Reservoir on a monthly basis. The modeling was provided by DWR to CCWD in 2013 (DWR, 2013b), and CCWD extracted the relevant information to determine the impacts to Los Vaqueros Reservoir, as depicted in the figure presented below.</p> <p>As shown in Figure 2-6 [see ATT K], the DWR Preferred Alternative, Alternative 4, would result in significant reductions in storage in Los Vaqueros Reservoir compared to the existing conditions and the No Action Alternative. Without the BDCP, Los Vaqueros Reservoir would be at maximum storage capacity 30% of the time under existing conditions and 20% of the time under the No Action Alternative; with the DWR Preferred Alternative, Los Vaqueros Reservoir would be at maximum storage [Footnote 25] only 4% of the time. Furthermore, without the BDCP, Los Vaqueros Reservoir would remain above the emergency storage level designated for below normal years (70 thousand acre-feet) 70% of the time under existing conditions and 60% of the time under the No Action Alternative; however, the DWR Preferred Alternative would reduce storage such that the reservoir would be above this level only 29% to 34% of the time, depending on the outcome of the BDCP "decision tree" process. The BDCP modeling clearly shows that while other future conditions that may occur without the BDCP, such as climate change and sea level rise, do have an impact on the storage in CCWD's Los Vaqueros Reservoir [Footnote 26], the BDCP would have a much more significant impact. [Footnote 27]</p> <p>[Footnote 22: CCWD's long-term water quality goal is to deliver water with chloride concentrations of 65 milligrams per liter (mg/L) or less to its customers. This goal has been approved by the CCWD Board of Directors (CCWD, 1988) and is the basis of significant investments by CCWD customers, including the construction of Los Vaqueros</p> | |

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| | | <p>Reservoir and the Old River intake and Middle River intake.]</p> <p>[Footnote 23: CCWD obtains its CVP water supply under Water Service Contract I75r-3401A-LTR1 with Reclamation. Pursuant to that contract, Reclamation relies on seventeen water rights permits to supply CVP water to CCWD: Permits 12721, 11967, 12722, 12723, 12725, 12726, 11315, 11316, 16597, 11968, 11969, 11971, 11973, 12364, 13776, 16600, and 15735, issued pursuant to Applications 5626, 5628, 9363, 9364, 9366, 9367, 13370, 13371, 14858, 15374, 15375, 16767, 17374, 17376, 18115, 19304 and 22316.]</p> <p>[Footnote 24: For instance, to meet customer demands for 400 acre-feet of water at the chloride goal of 65 mg/L, if the chloride concentration is 35 mg/L and 100 mg/L in Los Vaqueros Reservoir and at CCWD's Delta intakes, respectively, CCWD would need to release 215 acre-feet from Los Vaqueros Reservoir and divert 185 acre-feet from CCWD's Delta intakes. In this example, if the salinity within the reservoir is increased by 10 mg/L chloride, CCWD must release an additional 39 acre-feet from the reservoir (an increase of 18%) in order to continue to meet the 65 mg/L chloride delivery goal. Similarly, if the salinity within the Delta is increased by 20 mg/L chloride, the demand on the reservoir is increased by 20% in order to continue to meet the 65 mg/L chloride delivery goal. If salinity both in Los Vaqueros Reservoir and within the Delta is increased as described above, the net effect is an increase in demand on Los Vaqueros Reservoir of 36%.]</p> <p>[Footnote 25: Note that the modeling used in the BDCP Draft EIR/EIS did not include the expanded Los Vaqueros Reservoir, which has been completed and currently is in operation, but instead assumed maximum capacity of the original Los Vaqueros Reservoir of 104 thousand acre-feet.]</p> <p>[Footnote 26: As evidenced by comparison of the existing conditions and No Action Alternative in Figure 2-6.]</p> <p>[Footnote 27: As evidenced by comparison of the No Action Alternative and Alternative 4 in Figure 2-6.]</p> | |
| 1563 | 147 | <p>[ATT K: Figure 2-6. Graph illustrating Los Vaqueros Reservoir storage vs. exceedance probability.]</p> | <p>Please see response to Comment 146.</p> <p>Please see water quality analyses results in Chapter 8 and the associated appendices and Master Response 14.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> |
| 1563 | 148 | <p>Refined analysis by DWR staff:</p> <p>Staff from DWR have stated that the methodology and tools used in preparation of the BDCP Draft EIR/EIS tend to overestimate the impacts to CCWD's Los Vaqueros Reservoir. In a meeting with CCWD staff on February 15, 2013, staff from DWR presented slides</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained</p> |

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| | | <p>showing their analysis of the modeling that was used as the basis for the BDCP Draft EIR/EIS and also showing a more refined analysis that they had completed. DWR staff stated that while the methodology and tools used in preparation of the BDCP Draft EIR/EIS overestimate impacts, the refined analysis still revealed "noticeable" impacts to Los Vaqueros Reservoir. This statement was in reference to a plot that shows that storage in Los Vaqueros Reservoir at the end of September would often be reduced 10 thousand acre-feet to 20 thousand acre-feet (out of a possible 104 thousand acre-feet [Footnote 28: Note that, like the modeling used in the BDCP Draft EIR/EIS, supplemental DWR modeling did not include the expanded Los Vaqueros Reservoir, which had been completed and was already in operation at the time DWR performed its refined modeling. Instead DWR assumed the maximum capacity of the original Los Vaqueros Reservoir of 104 thousand acre-feet.]) beyond the corresponding storage in the No Action Alternative (DWR, 2013a at slide 28). This reduction in storage would be significant.</p> <p>DWR has not presented its refined analysis in the public draft of the BDCP environmental documents. Furthermore, calculating storage at the end of September does not show the full extent of impacts to Los Vaqueros Reservoir because minimum storage levels do not typically occur in September, so September storage does not capture the full extent of changes in seasonal salinity. Future analysis should look at storage in all months as multi-year droughts have substantial effects and emergencies can happen at any time, not just September.</p> | <p>within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please see Chapter 8 and associated appendices in the Final EIR/EIS and Master Response 14 regarding water quality analyses for these new alternatives.</p> |
| 1563 | 149 | <p>Refined analysis by Contra Costa Water District:</p> <p>Because neither the modeling performed for the BDCP Draft EIR/EIS nor the subsequent refined modeling performed by DWR staff examined the potential effects on the Los Vaqueros Reservoir for all of the relevant time periods, nor did DWR examine the effects on the existing 160 thousand acre-foot reservoir, CCWD conducted independent modeling to examine the potential effects on its facilities. Following DWR staff's suggestions, CCWD used the Delta Simulation Model II (DSM2) to determine chloride concentration at its intakes, taking into account whether the salinity was from ocean or agricultural salt to determine the amount of chloride in the water. CCWD input this refined water quality data into a model that simulates the operation of CCWD's raw water facilities, including its Delta intakes and Los Vaqueros Reservoir at the reservoir's expanded 160 thousand acre-feet capacity. CCWD's analysis found that the BDCP Alternative 4 would have significant impacts to storage in Los Vaqueros Reservoir, with the most severe impacts occurring during droughts when CCWD water supply is most vulnerable. Figure 2-7 shows the impacts that BDCP Alternative 4 would have on storage in Los Vaqueros Reservoir during a six-year drought that is based on the historical drought from 1929 through 1934. Without the BDCP (in the No Action Alternative), reservoir storage would never reach the level designated for emergency storage in dry years (44 TAF). However, under BDCP Alternative 4, the reservoir would be at or below the emergency storage level approximately 50% of the time during drought conditions.</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please see Chapter 8 and associated appendices in the Final EIR/EIS and Master Response 14 regarding water quality analyses for these new alternatives.</p> |
| 1563 | 150 | [ATT L: Figure 2-7. Graph of Los Vaqueros Reservoir storage: drought years 1929-1934.] | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please refer to please see Master Responses 28 concerning impacts</p> |

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| | | | to Los Vaqueros and chloride degradation at CCWD's intakes. Please see Chapter 8 and associated appendices in the Final EIR/EIS and Master Response 14 regarding water quality analyses for these new alternatives. Please see response to Comment 149. |
| 1563 | 151 | <p>Figure 2-6 [see ATT K] and Figure 2-7 [see ATT L] illustrate how the DWR Preferred Alternative, Alternative 4, would impact storage in Los Vaqueros Reservoir; similar impacts would be likely to occur under all BDCP alternatives that have significant impacts on chloride concentration at Contra Costa Water District's intakes, which includes all of the action alternatives. BDCP Draft EIR/EIS, Executive Summary, Table ES-9 at p. ES-64.</p> <p>Any decrease in water stored in Los Vaqueros Reservoir could limit the benefits of Los Vaqueros Reservoir to CCWD customers and other water users in the Bay Area. In addition to being a water quality reservoir, Los Vaqueros Reservoir was designed and built to provide emergency storage to CCWD and other regional water users during droughts or catastrophes. These negative impacts on the water supplies of CCWD must be fully disclosed and evaluated.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please refer to please see Master Responses 28 concerning impacts to Los Vaqueros and chloride degradation at CCWD's intakes. Please see Chapter 8 and associated appendices in the Final EIR/EIS and Master Response 14 regarding water quality analyses for these new alternatives.</p> <p>As indicated in the tables entitled "CALSIM II Summary Reporting Metrics, Long-Term Average and Dry and Critical Year Averages" in Appendix 5A, Section C, of the EIR/EIS, water deliveries to CVP water contractors in the San Francisco Bay Area Region (including Contra Costa Water District) would be similar or greater than Existing Conditions under all action alternatives; and similar or greater than the No Action Alternative under the action alternatives, except Alternatives 6, 7, and 8. As described in Chapter 5 of the EIR/EIS, the water supply impact analysis is based upon changes in water deliveries based upon SWP and CVP operations. The potential impacts and associated mitigations related to changes in water deliveries are presented in Appendix 5B, Response to Reduced South of Delta Water Supplies, and within applicable resource chapters, such as Chapter 8, Water Quality.</p> <p>The alternatives use existing water rights issued for the SWP and CVP.</p> |
| 1563 | 152 | <p>Impacts to Contra Costa Water District's ability to fill Los Vaqueros Reservoir with water diverted using CCWD's own water right.</p> <p>CCWD's water right permit to fill Los Vaqueros Reservoir from its intakes in the Delta (State Water Resources Control Board, Water Right Permit Number 20749) is conditioned by the following term:</p> <p>"No diversion is authorized that would adversely affect the operation of the Central Valley Project or State Water Project under permits and licenses for the Projects in effect on the date of this Order. An adverse effect shall be deemed to result from Permittee's diversion at any time the U.S. Bureau of Reclamation and the Department of Water Resources have declared the Delta to be in balanced water conditions under the Coordinated Operation Agreement or at any other time that such diversion would directly or indirectly require the Central Valley Project or the State Water Project to release water from storage or to reduce their diversion or redirection of water from the Delta to provide or assure flow in the Delta required to meet any applicable provision of state or federal law."</p> <p>(SWRCB, 2010, Term 23, pp. 5-6)</p> <p>Surplus Water: The Delta is in "balanced water conditions" when releases from CVP and SWP upstream reservoirs plus natural flow equal the water supply needed to meet Sacramento Valley in-basin uses (including water quality and flow objectives) plus CVP and SWP exports. Surplus (or "excess") conditions in the Delta exist when releases from upstream reservoirs plus unregulated flow exceed Sacramento Valley in-basin uses plus exports (Reclamation and DWR, 1986, at p. 4). At the time of the Notice of Preparation for</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Please refer to please see Master Responses 28 concerning impacts to Los Vaqueros and chloride degradation at CCWD's intakes. Please see Chapter 8 and associated appendices in the Final EIR/EIS and Master Response 14 regarding water quality analyses for these new alternatives.</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. 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>, All water exported by the SWP and CVP is the subject of the existing water rights of those two agencies. The Proposed Project and its alternatives analyzed in the EIR/EIS 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>On August 27, 2015 DWR and USBR submitted the change petition to SWRCB. This is a petition for a change to the water rights necessary to allow for the implementation of key components of the California WaterFix. The petition requests the State Water Resources Control Board (SWRCB) approval to add points of diversion and redirection to the existing water right permits (and existing diversion authorization) held by the State Water Project and Central Valley Project. The petition is limited in scope to the change in the point of diversion, and leaves intact all existing places of use, manner of use, other existing points of diversion,</p> |

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| | | <p>the BDCP Draft EIR/EIS, implementation of the above term had historically relied upon determination of Delta conditions; when the Delta was in surplus conditions CCWD was free to divert water to Los Vaqueros Reservoir under its own water right permit. Thus, in its May 19, 2009 comments on the BDCP Notice of Preparation, CCWD requested that the environmental document analyze and disclose the effects of the BDCP on the timing of surplus water, when CCWD would be able to use its water right (CCWD, 2009b, Attachment A at p. 15). However, the BDCP Draft EIR/EIS fails to analyze the changes in the timing and availability of surplus water in the Delta caused by the project.</p> <p>The BDCP would be likely to reduce the amount of time that surplus water would be available because Conservation Measure 1 (CM1) would allow the BDCP to capture surplus water that the SWP and CVP would otherwise not be able to capture due to existing regulations on exports in the south Delta. For example, export of Delta water into the SWP's Clifton Court Forebay is currently limited to the historical maximum daily average and 3-day average diversion rates of 6,993 cubic feet per second (cfs) and 6,680 cfs, respectively, from mid-March through mid-December; from mid-December through mid-March, the SWP can increase diversions by one-third of the San Joaquin River flow at Vernalis, provided that flows at Vernalis exceed 1,000 cfs (DWR, 2014a). The BDCP proposes to increase the maximum diversion rate for export of Delta water from SWP facilities [Footnote 29: This includes exports from any proposed new north Delta intakes plus diversions from the south Delta into Clifton Court Forebay.] to 10,300 cfs. Based on historical flows in the San Joaquin River at Vernalis [Footnote 30: Historical flows in the San Joaquin River at Vernalis from October 1, 1955 through December 31, 2013.], the BDCP would increase the maximum diversion rate for export of Delta water from SWP facilities 95% of the time, with an average increase in allowed diversion rate of 3,163 cfs.</p> <p>Whenever the amount of available surplus water is less than the combined increase in exports from the SWP and CVP, the BDCP would cause the Delta to transition from surplus to balanced conditions. Any reduction to the amount of time when surplus water is available would impact CCWD's ability to fill Los Vaqueros Reservoir using its own water right. Such an impact would mean that the water right permit changes needed to allow diversions at the new north Delta intakes could not be granted under Section 1701.1(d) of the California Water Code, which requires water right change petitions to "demonstrate a reasonable likelihood that the proposed change will not injure any other legal user of water."</p> | <p>quantities of diversion and other water rights terms and conditions identified in Water Rights Decision 1641. The submittal of the petition starts a public process expected to include a hearing and opportunity for comment by interested parties meeting certain SWRCB requirements. The SWRCB will evaluate the project's potential to injure legal users of water, ability to meet existing water quality requirements, and an assessment of potential effects on fish and wildlife. The SWRCB will also include within any approval of the petition "appropriate Delta flow criteria" as required by the Delta Reform Act.</p> <p>For more information regarding changes water rights of others please see Master Responses 26 and 32.</p> |
| 1563 | 153 | <p>Old and Middle River Regulations: Furthermore, in recent years, DWR has invoked the water right permit term quoted above to curtail Contra Costa Water District's use of its own water right permit to fill Los Vaqueros Reservoir during times when exports for the CVP and SWP are limited by regulation of Old and Middle River flows as specified in the current Biological Opinions for joint operation of the CVP and SWP (U.S. Fish and Wildlife Service, 2008 and National Marine Fisheries Service, 2009, collectively, "the current Biological Opinions"). The current Biological Opinions specify limits on the net flow in Old and Middle Rivers that must be met by the CVP and SWP to reduce take of listed species at the south Delta export facilities. Net flow in Old and Middle Rivers is primarily influenced by flow in the San Joaquin River at Vernalis and the total exports at Banks and Jones pumping plants in the south Delta (collectively, "south Delta exports"). Old and Middle River flow regulations are typically met by adjusting south Delta exports. However, since CCWD's Old and Middle River intakes are in the vicinity, DWR takes the</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>The CALSIM II model calculated the Old and Middle River flow changes after maintaining the local South Delta diversions, including Contra Costa Water District's intakes on the Old and Middle rivers.</p> <p>For more information regarding changes water rights of others please see Master Responses 26 and 32.</p> |

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| | | <p>position that diversions at CCWD's intakes could affect flow in Old and Middle Rivers. Therefore, when south Delta exports are limited by Old and Middle River flow regulations, the DWR staff have claimed that CCWD cannot use its own water right to fill Los Vaqueros Reservoir.</p> <p>The BDCP is likely to increase the percentage of time that the south Delta exports would be limited by Old and Middle River flow regulations. This impact may be counterintuitive as the BDCP would reduce south Delta exports, but the BDCP Draft EIR/EIS shows that south Delta exports would not be substantially reduced in dry years. Alternatives 1, 3, and 5 would not substantially reduce south Delta exports on average from December through June in dry years, and Alternatives 2 and 4 would not substantially reduce south Delta exports on average from April through June in dry years. BDCP Draft EIR/EIS, Chap. 5, Figure 5-29.</p> <p>Additionally, the BDCP would include more restrictive limits on Old and Middle River flows for some alternatives to reduce the allowable south of Delta exports. BDCP Draft EIR/EIS, Chap. 3 at p. 3-32. In fact, Alternatives 2 and 4 -- which include operational scenarios B and H, respectively -- would include regulations for year-round limits on Old and Middle River flow; these alternatives would add limits in July through November, which do not currently exist in the current Biological Opinions. Additionally, Alternatives 2, 4, 7, and 8 -- which would include operational scenarios B, H, E, and F, respectively -- would include limits on Old and Middle River flow that are more limiting than the regulations in the current Biological Opinions.</p> <p>Any increase in the percent of time when Old and Middle River flow would limit south Delta export pumping could further reduce CCWD's ability to fill Los Vaqueros Reservoir using water diverted pursuant to its own water right.</p> <p>The BDCP Draft EIR/EIS fails to determine the impact from the project on CCWD's ability to use its water right to fill Los Vaqueros Reservoir and the consequent impact on storage. This impact is in addition to the impact described [elsewhere in our comments] (illustrated in Figure 2-6 [see ATT K] and Figure 2-7 [see ATT L]). These adverse impacts from the BDCP on CCWD's water supplies, and on CCWD's use of its physical facilities, must be disclosed, evaluated, and mitigated.</p> | |
| 1563 | 154 | <p>Impacts to Contra Costa Water District's ability to fill Los Vaqueros Reservoir with Central Valley Project water:</p> <p>At times when CCWD cannot use its own water right to fill Los Vaqueros Reservoir, CCWD may be able to fill Los Vaqueros Reservoir pursuant to Reclamation's water rights for the CVP. However, when exports of the SWP and CVP are regulated by Old and Middle River flow criteria, CVP operators have often requested that CCWD reduce or stop filling of Los Vaqueros Reservoir with CVP water. By reducing CCWD's filling of Los Vaqueros Reservoir (which occurs at a maximum of 200 cfs), Reclamation is able to export the water to south of Delta contractors. This shift in deliveries from CCWD to other CVP contractors provides no benefits to fish; diversions are reduced at CCWD's Old and Middle River intakes, which are fully screened for fish protection, and diversions are increased at the Jones Pumping Plant, which does not have positive barrier fish screens.</p> <p>By increasing the percent of time that south Delta exports are constrained by Old and</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>The CALSIM II model logic calculated the Old and Middle River flow changes after maintaining the local South Delta diversions, including Contra Costa Water District's intakes on the Old and Middle rivers.</p> <p>For more information regarding changes water rights of others please see Master Responses 26 and 32.</p> |

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| | | Middle River flow regulations as described [elsewhere in our comments], the BDCP would impact CCWD's ability to fill Los Vaqueros Reservoir with water from the CVP and consequently would reduce Los Vaqueros Reservoir storage. This impact is in addition to the impacts described [elsewhere in our comments]. This negative impact on CCWD's water supplies and its facilities must be disclosed, evaluated, and mitigated. Further, since CVP south of Delta contractors are proponents of the BDCP, it would not be proper for these contractors to increase their own water supply by reducing the water supplies of other water providers such as CCWD. | |
| 1563 | 155 | <p>Impacts resulting from the BDCP's effect on storage in Central Valley Project reservoirs are not fully evaluated and disclosed.</p> <p>Since the BDCP Draft EIR/EIS fails to provide an operations plan describing how existing water supply facilities would be managed in conjunction with the proposed new water supply facilities of the BDCP, the BDCP Draft EIR/EIS does not assess the impacts to Contra Costa Water District water supply resulting from changes in operation of CVP storage facilities. Recognizing this defect, the Bureau of Reclamation indicated that it will continue to evaluate the effects of upstream operational changes caused by the BDCP, and Reclamation will analyze these impacts in a supplemental NEPA document (Reclamation, 2013a).</p> <p>Without an operations plan, the BDCP's impacts on storage in CVP reservoirs and any consequent impacts on CCWD's water supply cannot be known. Nonetheless, the BDCP Draft EIR/EIS makes findings regarding water supply impacts to CVP reservoirs. The resulting analysis is flawed and incomplete; it hides project effects on storage in Shasta Lake and fails to analyze the impacts that changes in storage in San Luis Reservoir would have on other water users, including CCWD (Contra Costa Water District).</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>Changes in storage in Shasta Lake and San Luis Reservoir under action alternatives as compared to the No Action Alternative (which represents the effects of the action alternatives without the effects of climate change, sea level rise, and projected growth) are presented in Appendix 5A, Section C, of the EIR/EIS. The results show that CVP water contract deliveries to CVP contractors in the San Francisco Bay Area would be similar under Alternatives 1 through 5, 4A, 2D, 5A, and 9 and substantially lower under Alternatives 6 through 8. However, under Alternatives 6 through 8, Contra Costa Water District would continue to have delivery of the CVP water contract water because only diversions at the Jones Pumping Plant would be restricted.</p> |
| 1563 | 156 | <p>Impacts to Shasta Lake:</p> <p>Shasta Lake, which can hold 4,552,000 acre-feet of water, is the largest CVP reservoir. The operations analysis conducted for the BDCP unreasonably assumes that Shasta Lake would be allowed to reach unprecedented low levels of storage in both the No Action Alternative and all of the project alternatives, even though the BDCP Draft EIR/EIS acknowledges that actual operations would be substantially different from the operations that were assumed for the purpose of assessing project impacts.</p> <p>Historically, from 1954 through 2013, storage in Shasta Lake has dropped below 1,000,000 acre-feet in only one year: 1977, when the minimum storage level was 578,000 acre-feet (DWR, 2014c). During the 6-year drought from 1987 through 1992 and the 3-year drought from 2007 through 2009, storage in Shasta Lake never dropped below 1,280,000 acre-feet (DWR, 2014c). During the current 3-year drought from 2012 to 2014, storage has not dropped below 1,650,000 acre-feet (DWR, 2014c), and the Bureau of Reclamation forecasts that Shasta Lake will stay above 1,000,000 acre-feet through 2014 (Reclamation, 2014).</p> <p>Faced with this historical record, the modeling performed for the BDCP Draft EIR/EIS nevertheless assumes an operational scenario that, in the No Action Alternative, would allow storage to drop below 1,000,000 acre-feet in 19% of the years, and drop below 578,000 acre-feet (the historical minimum) in 11% of the years. There is no evidentiary</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>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> |

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| | | <p>basis to support the premise that CVP reservoirs would be operated to such an extreme condition under future No Action conditions; such extreme levels have never happened before and existing regulations and policies prevent Reclamation from dropping storage in Shasta Lake to such low levels as frequently as shown in the BDCP Draft EIR/EIS (e.g. NMFS 2009 at pp. 590-603). Indeed, the BDCP Draft EIR/EIS acknowledges that the analysis is incorrect, stating that, during very dry years, the model results "should not necessarily be understood to reflect literally what would occur in the future. In actual future operations, as has always been the case in the past, the project operators would work in real time to satisfy legal and contractual obligations given then current conditions and hydrologic constraints." BDCP Draft EIR/EIS, Chap. 5 at p. 5-46.</p> <p>But because of faulty operational modeling assumptions, the impact analysis for these years shows that the water level in Shasta Lake would drop to the elevation of the lowest water outlet under the No Action Alternative, and thus there could be no water supply impacts from the BDCP in these years -- since it is not possible for the Shasta Lake storage to drop any lower. Yet it is precisely during such dry years when impacts to storage in Shasta Lake would cause impacts to the water supplies of CVP contractors. The "anomalies" (BDCP Draft EIR/EIS, Chap 5 at p. 5-46) in the analysis of the No Action Alternative prevent the water supply assessment from revealing any impacts to storage in Shasta Lake in these very dry years, thereby underestimating impacts to water supplies of CVP contractors.</p> | |
| 1563 | 157 | <p>Impacts to San Luis Reservoir:</p> <p>Since 2001, the Bureau of Reclamation has been working on the San Luis Low Point Improvement Project, which is an investigation of solutions to problems that occur when San Luis Reservoir storage drops below a "low point" of 300 thousand acre-feet:</p> <p>"As the San Luis Reservoir is drawn down during the summer and into the late fall (when water supplies are needed most), a thick layer of algae (as much as 35 feet thick) grows on the surface. As the water level lowers, this algae gets captured by SFD [San Felipe Division] intakes. The algae degrades water quality and makes water more difficult to treat. As a result, San Felipe Division deliveries can be interrupted when the reservoir falls below 300,000 acre-feet. These delivery interruptions are critical because the San Luis Reservoir is the only CVP water source that SFD [San Felipe Division] contractors can access. Potential effects of these issues include:</p> <ul style="list-style-type: none"> * Interruption of water deliveries to domestic, industrial, and agricultural users * Interruption of water deliveries used to replenish groundwater supplies * Blockage of agricultural irrigation systems * Reduced ability to treat water effectively * Increased water treatment costs * Taste and odor problems" <p>(Reclamation and SCVWD, circa 2008)</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>The Final EIR/EIS includes model results for Alternatives 2D, 4A, and 5A as compared to the No Action Alternative and Existing Conditions in Appendix 5A, Section C, in addition to the model results previously provided in the 2013 Draft EIR/EIS. The comparative results between Alternatives 2D, 4A, and 5A and the No Action Alternative and the Existing Conditions are consistent with the impact analysis results presented in the RDEIR/SDEIS.</p> <p>Please see Master Response 14 related to water quality and Master Response 30 related to modeling.</p> |

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| | | <p>The BDCP Draft EIR/EIS acknowledges that "[w]ith the existing facility configuration, the operation of the San Luis Reservoir could impact the water quality and reliability of water deliveries to the San Felipe Division if San Luis Reservoir is drawn down too low. Reclamation has an obligation to address this condition and may solicit cooperation from DWR ... If the CVP is not able to maintain sufficient storage in San Luis Reservoir, there could be potential impacts on resources in Santa Clara and San Benito Counties." BDCP Draft EIR/EIS, Chap. 5 at p. 5-24. Despite the recognition of this issue, the BDCP Draft EIR/EIS does not evaluate the potential impacts of the BDCP alternatives on San Luis Reservoir storage.</p> <p>Contra Costa Water District determined the percentage of time that the water level in San Luis Reservoir would drop below the "low point" by extracting relevant information from modeling that served as the basis for the BDCP Draft EIR/EIS analysis and that was provided to CCWD by DWR (DWR, 2013b). For all alternatives except for Alternatives 1 and 3, the BDCP would exacerbate the San Luis Reservoir low point problem (Figure 2-8 [see ATT M]). Under the DWR Preferred Project, Alternative 4, storage in San Luis Reservoir would drop below 300 thousand acre-feet in 44% to 86% of the years, depending on the outcome of the decision tree studies, as compared to 36% of the years under the No Action Alternative.</p> <p>Since the Bureau of Reclamation states that it "has an obligation to address this condition," and as modeling that was used as the basis for the BDCP Draft EIR/EIS indicates that the condition would get worse under the BDCP, the BDCP Draft EIR/EIS should determine the impacts of exacerbating this condition (see the bulleted list of effects above) and determine what actions might be taken by Reclamation to address it.</p> <p>Additionally, the BDCP Draft EIR/EIS must evaluate the impact that the increased occurrence of low point problems in San Luis Reservoir would have on CCWD's ability to fill Los Vaqueros Reservoir with CVP water. Reclamation operators have often requested that CCWD reduce or stop filling Los Vaqueros Reservoir with CVP water when exports are constrained. Since the BDCP would create impacts to storage in San Luis Reservoir that Reclamation is obligated to address, the BDCP would create a conflict between filling San Luis Reservoir and filling Los Vaqueros Reservoir. This conflict, which affects CCWD's water supplies and the use of its facilities, needs to be disclosed, evaluated and mitigated in the BDCP Draft EIR/EIS. Further, since the San Felipe Division contractors are proponents of the BDCP, it would not be proper for those contractors to avoid the impacts that their own project would have on their water supply operations by redirecting those impacts to other water providers such as CCWD.</p> <p>If, in fact, the San Luis Reservoir low point problem would not be exacerbated by the BDCP because CVP and SWP operations of existing facilities would be modified in conjunction with the new water conveyance facility, then this system reoperation is properly part of the BDCP and must be disclosed and analyzed.</p> | |
| 1563 | 158 | [ATT M: Figure 2-8. Graph depicting percent of years when San Luis Reservoir drops below the "low point" that creates water supply and water quality impacts for certain Central Valley Project contractors.] | Please see response to Comment 157. Please see Master Response 14 related to water quality and Master Response 30 related to Modeling. |
| 1563 | 159 | The BDCP Draft EIR/EIS fails to disclose significant impacts to existing water supply | As described in Appendix 3B, Environmental Commitments, and Appendix 3C, Construction Assumptions for Water Conveyance Facilities, during the initial stages of the design phase, site-specific surveys of |

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| | | <p>infrastructure due to project construction.</p> <p>Construction of Conservation Measure 1 could have significant impacts on existing CCWD drinking water facilities.</p> <p>The BDCP Draft EIR/EIS does not identify existing Contra Costa Water District drinking water facilities that would be affected during construction of the project, although the BDCP Draft EIR/EIS Map Books show that construction of CM1 is likely to impact CCWD's existing facilities in the plan area. The nature and extent of the impact would vary depending on the alternative; the focus of the comments here is on impacts of the alignments for Alternatives 1A, 2A, 3, 4, 5, 6A, 7, and 8, which include the alignment for the DWR Preferred Alternative (Alternative 4). Other alternatives that use the eastern alignment or the western alignment could have some of the same impacts as well as some additional impacts.</p> <p>Restrictions on access to Contra Costa Water District facilities:</p> <p>Construction of CM1 in Alternative 1A, 2A, 3, 4, 5, 6A, 7, and 8 would be likely to restrict access to CCWD's existing facilities. The tunnels would cross under the CCWD Middle River Pipeline in Victoria Island and under the Western Area Power Administration power line that was constructed for the Middle River intake. Figure 2-9 below [see ATT N] shows CCWD's facilities superimposed on the BDCP facilities. BDCP Draft EIR/EIS, Chap. 3 Mapbook Figure M3-4 (Sheet 11 of 15), and Chap. 13, Mapbook Figure M13-4 (Sheet 6 of 8).</p> <p>Construction work could interfere with CCWD's routine maintenance access to facilities along the tunnel alignment. Construction at Highway 4 may affect daily access to the Middle River intake and facilities there. Similarly, construction could impair emergency ingress and egress to the intake on the Victoria Island levee road.</p> <p>The BDCP Draft EIR/EIS fails to identify these impacts. The BDCP Draft EIR/EIS states that "Construction activities for the action alternatives were reviewed to assess the potential for effects on water service providers and infrastructure." BDCP Draft EIR/EIS, Chap. 20 at p. 20-32. With respect to underground pipelines carrying "petroleum products, oxygen, chlorine, toxic or flammable gases" or high-voltage electric lines, the BDCP Draft EIR/EIS prescribes procedures for avoiding impacts during construction of the BDCP. Id. at p. 20-53. However, with respect to water service providers, the only impacts considered relate to the project's impact on water demand. There is no identification or evaluation of the impacts of construction activities on drinking water supply infrastructure.</p> <p>The BDCP Draft EIR/EIS must identify these impacts, assess their significance, and include appropriate avoidance and mitigation measures.</p> | <p>geotechnical, topographic, and other conditions (e.g., locations of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be coordinated and submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate.</p> |
| 1563 | 160 | [ATT N: Figure 2-9. BDCP facilities (Alternative 4) with CCWD intakes and pipeline in the south Delta. Adapted from Map M3-4 Sheet 11 of 15 in the BDCP Draft EIR/EIS.] | Please see response to Comment 159. |
| 1563 | 161 | <p>Land subsidence and levee failures caused by tunnel construction:</p> <p>The BDCP Draft EIR/EIS acknowledges that the action alternatives could result in substantial land subsidence but erroneously identifies the resulting impact as insignificant</p> | As described in Appendix 3B, Appendix 3C, and Chapter 7 of the EIR/EIS, dewatering would occur at the tunnel shafts following drilling of the shaft, placement of the impervious shaft liner, and placement of impervious liner at the bottom of the shaft. |

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| | | <p>and fails to provide adequate mitigation.</p> <p>The BDCP Draft EIR/EIS states that "[l]ocalized settlement could occur during construction of BDCP water conveyance facilities. In particular, settlement above tunnels could occur in response to removal of earth materials at the tunnel face, convergence of voids created around the tunnel excavation, and stress redistribution around the excavated tunnel." BDCP Draft EIR/EIS, Appendix 3B at p. 3B-7. The BDCP Draft EIR/EIS further states that, in addition to the potential damage to project pipelines and tunnels, "[d]amage to other conveyance facilities, such as intakes, pumping plants, transition structures, and control structures, caused by subsidence/settlement under the facilities and consequent damage to or failure of the facility could also occur. Facility damage or failure could cause a rapid release of water to the surrounding area, resulting in flooding, thereby endangering people in the vicinity." BDCP Draft EIR/EIS, Chap. 10 at p. 10-93. The BDCP Draft EIR/EIS recognizes that "this potential effect could be substantial because the facilities could be located on soils that are subject to subsidence." Id. at p. 10-94.</p> <p>Land subsidence resulting from the construction of the BDCP conveyance facilities could have a substantial, direct effect on Contra Costa Water District's water supply, as a result of subsidence under or adjacent to CCWD facilities and subsidence underneath levees throughout the Delta, which could negatively impact Delta water quality. The alignment of the tunnels for Alternatives 1A, 2A, 3, 4, 5, 6A, 7, and 8 would cross under the CCWD Middle River Pipeline in Victoria Island. BDCP Draft EIR/EIS, Chap. 3, Mapbook Figures M3-1 (Sheet 11 of 13) and M3-4 (Sheet 11 of 15). Land subsidence under or adjacent to this pipeline could interrupt the use of the intake and thereby interrupt and limit CCWD's water supply. At Highway 4 on Victoria Island, the tunnels would cross under the branch 69 kilovolt power line that supplies power to Pump Station #1. The tunnels also would cross under the Western Area Power Administration high voltage power lines further north on Victoria Island. BDCP Draft EIR/EIS, Chap. 3, Mapbook Figure M3-4 (Sheet 11 of 15). Disruption of that power supply would disrupt CCWD's water diversion capabilities and impact CCWD's water supply. Further, the tunnels for Alternatives 1A, 2A, 3, 4, 5, 6A, 7, and 8 would cross under levees more than 16 times, with many of those crossings located in areas with "Medium to Medium High" levee liquefaction damage potential. BDCP Draft EIR/EIS, Figure 9-6. Land subsidence due to project construction could cause levee failure and flooding of one or more Delta islands, which could impact Delta water quality, thereby limiting CCWD's water supply.</p> <p>During the construction of CCWD's Middle River Pipeline, sand boils were observed in tailwater ditches adjacent to the foot of the levee on Victoria Island along Old River, south of Highway 4. These sand boils are common throughout the Delta and illustrate the potential fragility of soils and levees near CCWD facilities and elsewhere. Island flooding could result from sand boils or from levee subsidence caused by the tunnel construction. Island flooding would disrupt access to CCWD facilities at best, and at worst would render CCWD facilities unusable for a period of time. Island flooding could also increase seawater intrusion throughout the Delta. Such intrusion would degrade the quality of the water available to CCWD for diversion or could interrupt CCWD's diversions. After levee repair, pumping the water that has accumulated on a flooded island into the adjacent Delta channels would continue the addition of salt to Delta channels, prolonging the water quality degradation for constituents like chloride and bromide. Draining accumulated water would also add significant total organic carbon to Delta waters and taste and</p> | |

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| | | <p>odor-causing algal byproducts. The water quality impacts caused by island flooding could extend for months if flooding covered a large area, as evidenced by the flooding on Jones Tract in 2004 (DWR, 2009b).</p> <p>Levee subsidence resulting from tunneling below a levee is not hypothetical. During tunneling carried out for the San Francisco Public Utilities Commission as part of its Water Supply Improvement Projects, levee subsidence occurred directly above the tunnel (Westlands Water District, 2013 at slide 31). Similar subsidence above tunnel boring has been reported in Europe (DESY, 2011).</p> <p>Despite the recognition within the BDCP Draft EIR/EIS that land subsidence due to project construction could be substantial and despite the evidence supporting this conclusion, the BDCP Draft EIR/EIS finds that the impact is insignificant and no mitigation is needed. Legally adequate mitigation must be identified.</p> <p>In sum, the finding in the BDCP Draft EIR/EIS that the impacts from land subsidence due to project construction are insignificant is erroneous; the impacts should be identified as significant and appropriate, enforceable mitigation should be adopted.</p> | |
| 1563 | 162 | <p>Water quality impacts of construction:</p> <p>Both discharge of saline groundwater into Delta waterways during dewatering operations and relocation of agricultural drains during construction may impact water quality by increasing salinity near Delta drinking water intakes. These impacts were not evaluated in the BDCP Draft EIR/EIS, and mitigation for these and other water quality impacts was not provided.</p> <p>The BDCP Draft EIR/EIS lists the potential water quality impacts of BDCP construction; salinity is not among them. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-486 to 8-487. However, agricultural tailwater is highly saline, and alteration of existing drainage patterns has the potential to cause impacts at drinking water intakes. Delta groundwater is also highly saline, and discharge of groundwater during construction dewatering activities also has the potential to cause impacts at drinking water intakes.</p> <p>The BDCP Draft EIR/EIS does not analyze or provide mitigation for these water quality impacts. The "environmental commitments" provided in the BDCP Draft EIR/EIS are routine -- developing a Storm Water Pollution Prevention Plan and exercising Best Management Practices -- and do not address salinity impacts. BDCP Draft EIR/EIS, Chap. 8 at p. 8-487, and Appendix 3B. Salinity impacts must be analyzed and mitigation measures for salinity impacts and for the other water quality impacts of construction must be provided.</p> | <p>As described in Chapter 7, Groundwater, and Chapter 14, Agricultural Resources, in the EIR/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. DWR would consult with local reclamation districts to ensure that construction activities would not conflict with reclamation district flood protection measures. In the Final EIR/EIS the description of the proposed project, Alternative 4A, was modified to include slurry wall installation to protect local groundwater conditions under construction. Slurry walls would be constructed around the construction site at the intakes, tunnel shafts, and forebays to reduce the effect of dewatering wells.. Mitigation measures have been identified in the EIR/EIS to reduce the impacts to less than significant as compared to Existing Conditions. Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 will reduce the severity of significant impacts in agricultural areas 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.</p> <p>Regarding construction water quality impacts, these Impacts are fully discussed within WQ-31 in Chapter 8 for each alternative, with extensive discussion regarding potential sources of water quality impacts and measures to be implemented to protect water quality. Please see Master Response 14 related to water quality and salinity.</p> |
| 1563 | 163 | <p>Construction of the other Conservation Measures could have significant effects that have not been revealed.</p> <p>Conservation Measures 2 through 22 are insufficiently defined to determine possible construction impacts, [and there is a] lack of adequate project descriptions and a need for further CEQA and NEPA analysis on these measures.</p> | <p>The analysis for Conservation Measures 2-21 was completed at a programmatic level, as described in Chapter 4 of the 2013 Draft EIR/EIS and meets NEPA and CEQA requirements. Alternative 4 remains a viable alternative. However, a modified proposed project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include Conservation Measures 2 through 21. Restoration actions that are independent of Proposed Action, such as EcoRestore which includes many of the actions considered in the 2013 Draft EIR/EIS as Conservation Measures 2 through 21, will be evaluated in separate engineering and environmental documentation and are evaluated in the Final EIR/EIS as part of the cumulative impact analysis. Please refer to Master Response 2 with regard to program level</p> |

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| | | | analysis and Master Response 5 related to the status of the BDCP. With regards to cumulative impacts, please see Master Response 9. |
| 1563 | 164 | <p>Formulation of mitigation measures is improperly deferred.</p> <p>The BDCP Draft EIR/EIS acknowledges that Alternative 4 (the DWR Preferred Alternative) and all other action alternatives would cause significant water quality impacts near Contra Costa Water District intakes in the Plan Area. The BDCP Draft EIR/EIS does not, however, identify mitigation for these impacts that meets CEQA's or NEPA's basic requirements. In addition, the BDCP Draft EIR/EIS fails to acknowledge, and therefore to identify mitigation for, other significant or potentially significant impacts affecting CCWD.</p> <p>The BDCP Draft EIR/EIS acknowledges three significant impacts to water quality near CCWD intakes. These significant impacts arise from BDCP-caused increases in chloride, electrical conductivity (EC) and dissolved organic carbon (DOC). Impact WQ-7 is "determined to be significant due to increased chloride concentrations and degradation at western Delta locations and its potential effects on municipal and industrial water supply and fish and wildlife beneficial uses." BDCP Draft EIR/EIS, Chap. 8 at p. 8-429. Impact WQ-11 states that EC increases are significant in the Plan Area due to "increase in the frequency with which Bay-Delta WQCP [Water Quality Control Plan] EC objectives are exceeded for the entire period modeled." BDCP Draft EIR/EIS, Chap. 8 at p. 8-440. Impact WQ-18 states that the BDCP's DOC impact is significant because "habitat restoration elements of CM4-CM7 and 10 could contribute to long-term water quality degradation with respect to DOC and, thus, adversely affect MUN [Municipal and Domestic Supply] beneficial uses." BDCP Draft EIR/EIS, Chap. 8 at p. 8-457. Yet, the BDCP Draft EIR/EIS does not identify legally adequate mitigation for these acknowledged impacts.</p> <p>In addition, although the BDCP Draft EIR/EIS does not identify the BDCP's increases in bromide levels at Mallard Slough as a significant impact (see Impact WQ-5), it must do so. CCWD's "opportunistic" use of the Mallard Slough intake does not mean that the BDCP's increase in pollutants there, and CCWD's resulting loss of opportunities to use water from that location, is not a significant impact that requires mitigation. Chloride, EC (electrical conductivity), DOC (dissolved organic carbon) and bromide [need to be addressed] together because the BDCP Draft EIR/EIS purports to identify mitigation for all of these impacts together -- even though the BDCP Draft EIR/EIS does not acknowledge that the significant bromide impact applies to CCWD facilities.</p> <p>Finally, a number of potentially significant impacts that the BDCP Draft EIR/EIS does not analyze include water quality impacts from increased concentrations of constituents in Delta waterways that form harmful byproducts in drinking water treatment processes, algae and algal byproducts, altered drainage patterns, and the potential for levee failure; water supply impacts; and BDCP construction-phase impacts to CCWD facilities or other facilities upon which CCWD relies. All of these impacts obligate the BDCP proponents to identify legally adequate mitigation measures. [Our further comments] request mitigation for other significant impacts affecting CCWD that the BDCP Draft EIR/EIS has missed.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>Though there is no specific analysis relative to 50, 65, and 100 mg/L chloride, water quality degradation (i.e., increasing chloride concentrations that may not violate D1641 standards but that nevertheless could potentially impact beneficial uses) was assessed relative to the 250 mg/L chloride objective. Impacts related to water quality degradation on Antioch and CCWD are disclosed in Chapter 8. Mitigation measures related to Water Quality are described in Chapter 8 of the EIR/EIS.</p> <p>The lead agencies have complied with CEQA and NEPA and have not deferred mitigation. With regards to mitigation, please see Master Response 22.</p> <p>With regard to water quality, please see Master Response 14.</p> <p>In assessing concentration changes during the period of existing acceptable water quality, the EIR/S is analyzing and disclosing impacts on water quality at Antioch and Mallard Slough.</p> <p>As described in the Final EIR/EIS, Alternative 4A would have substantially less effect on Delta water quality as compared to No Action Alternative 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.</p> |
| 1563 | 165 | <p>The BDCP Draft EIR/EIS fails to identify legally adequate mitigation measures for identified significant water quality impacts.</p> <p>CEQA requires EIRs to describe feasible measures that can minimize each significant</p> | <p>Chapter 8 of the Final EIR/EIS, including discussions of the impacts and appropriate mitigations on water quality constituents for each action alternative, has been modified since publication of the 2013 Draft EIR/EIS. This Final EIR/EIS presents feasible mitigation measures that have been determined by the lead agencies to adequately reduce the severity of impacts and that meet the requirements of CEQA and NEPA.</p> |

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| | | <p>adverse impact of the proposed project. Cal. Pub. Res. Code [Sections] 21002.1(a), 21100(b)(3). Such mitigation measures include:</p> <p>(a) Avoiding the impact altogether by not taking a certain action or part of an action.</p> <p>(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.</p> <p>(c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.</p> <p>(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.</p> <p>(e) Compensating for the impact by replacing or providing substitute resources or environments. CEQA Guidelines [Section] 15370.</p> <p>"Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way." CEQA Guidelines [Section] 15126.4(a)(1)(B). Mitigation measures "must be fully enforceable through permit conditions, agreements, or other legally-binding instruments." CEQA Guidelines [Section] 15126.4(a)(2).</p> <p>NEPA requires that an EIS discuss means to mitigate all adverse environmental impacts of the alternatives, regardless of whether they are deemed significant. 40 C.F.R. [Section] 1502.16(h). The NEPA definition of "mitigation" is functionally identical to CEQA's definition; it calls for avoiding, minimizing, rectifying, reducing, or compensating for environmental effects. See 40 C.F.R. [Section] 1508.20. Measures calling merely for consultation, further studies, preparation of plans, and monitoring do not meet NEPA's requirements. R. Bass, A. Herson & K. Bogdan, The NEPA Book (2001) at p. 118. "The common fault shared by these types of 'paper mitigation' measures is that they do not solve the environmental problems disclosed in the NEPA document. ... The best test to judge the adequacy of a recommended mitigation measure is to ask: Is this measure a specific, tangible action that will reduce a physical environmental effect?" Id.</p> <p>As described below, the BDCP Draft EIR/EIS's purported mitigation for impacts to water quality at Contra Costa Water District intakes fails all of these tests. The BDCP Draft EIR/EIS:</p> <p>* Draws internally inconsistent conclusions on the fundamental question as to whether the BDCP's significant water quality impacts can be mitigated to a less-than-significant level;</p> <p>* Defers identification of mitigation measures to the distant future without explaining why such deferral is necessary, and fails to specify performance standards, identify a menu of potential measures that would reduce the impact, describe how the BDCP proponents would select among the measures, or identify which BDCP proponents would</p> | <p>Additionally please see Master Response 14 and Master Response 22.</p> |

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| | | <p>be responsible for implementing the measures that are ultimately selected;</p> <p>* Makes no attempt to mitigate water quality impacts that will begin before the "commencement of operations of CM1."</p> <p>* Makes no attempt to mitigate water quality impacts that would begin with the "commencement of operations of CM1," choosing not to begin even studying mitigation options until after CM1 has begun operating and causing significant water quality impacts;</p> <p>* Disavows the BDCP proponents' obligation under CEQA and NEPA to provide compensatory mitigation, relegating such mitigation to a separate set of "non-environmental" "other commitments" -- commitments to which the BDCP proponents do not actually commit;</p> <p>* Asserts that the BDCP proponents are not obligated to contribute at all to mitigation for any significant effects that are caused "substantially" by climate change, yet fails to disclose the extent to which impacts are caused by the project as opposed to climate change; and</p> <p>* Lists "mitigation measures" that are mere studies leading to "development" of "actions" and are not legally binding commitments to actual mitigation.</p> <p>For each of these reasons, the BDCP Draft EIR/EIS does not meet fundamental CEQA and NEPA requirements for identification and analysis of mitigation measures to address significant water quality impacts.</p> | |
| 1563 | 166 | <p>The Water Quality chapter of the BDCP Draft EIR/EIS does not identify adequate mitigation for significant chloride, EC (electrical conductivity) and bromide impacts.</p> <p>Conflicting statements regarding the availability of mitigation measures to reduce chloride, EC and bromide impacts:</p> <p>The first defect in the BDCP Draft EIR/EIS's discussion of mitigation for chloride, EC and bromide is fundamental and affects all of the mitigation discussion that follows. The BDCP Draft EIR/EIS's statements on the basic question of whether mitigation is available to reduce these impacts to less-than-significant is internally inconsistent and incomprehensible. In the space of one paragraph, the BDCP Draft EIR/EIS states both that mitigation sufficient to mitigate the impact to less-than-significant is flatly "not available" and, on the other hand, that the impact is considered significant and unavoidable only because the effectiveness of mitigation is "uncertain":</p> <p>"While mitigation measures to reduce these water quality effects in affected water bodies to less than significant levels are not available, implementation of Mitigation Measure WQ-7 is recommended to attempt to reduce the effect that increased chloride concentrations may have on Delta beneficial uses. However, because the effectiveness of this mitigation measure to result in feasible measures for reducing water quality effect is uncertain, this impact is considered to remain significant and unavoidable. BDCP Draft EIR/EIS, Chap. 8 at p. 8-429 (emphasis added). See id. at pp. 8-440 (same statement re EC mitigation), 8-421 (same statement re bromide mitigation)."</p> | <p>Chapter 8 of the Final EIR/EIS, including discussions of the impacts and appropriate mitigations on water quality constituents for each action alternative, has been modified since publication of the 2013 Draft EIR/EIS. This Final EIR/EIS presents feasible mitigation measures that have been determined by the lead agencies to adequately reduce the severity of impacts and that meet the requirements of CEQA and NEPA. Additionally please see Master Response 14. For additional explanations regarding project mitigation, feasibility of the mitigation please see Master Response 22 regarding Mitigation.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Incremental changes in salinity under Alternatives 4A, 2D, and 5A as compared to the Existing Conditions and No Action Alternative are less than between action alternatives with large-scale habitat restoration and Existing Conditions and No Action Alternative.</p> |

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| | | <p>Both of these statements cannot be true. The BDCP proponents have either concluded that no measures are available to mitigate the chloride, EC and bromide impacts to less-than-significant or mitigation is available, but they have not yet drawn conclusions about effectiveness. The BDCP Draft EIR/EIS must be revised to make a clear statement on this fundamental point.</p> <p>Contra Costa Water District submits that a performance standard can be identified and the BDCP proponents must commit to meeting that standard through a menu of feasible compensatory mitigation measures designed to substantially reduce the effects of the BDCP's chloride, EC and bromide increases, at least as to municipal and domestic water supply sources.</p> | |
| 1563 | 167 | <p>Inadequate mitigation measures listed in BDCP Draft EIR/EIS Chapter 8:</p> <p>The BDCP Draft EIS/EIR identifies a total of four mitigation measures, WQ-7a, WQ-7b, WQ-11a and WQ-5, for significant chloride, EC and bromide impacts that would affect municipal and domestic water sources in the Plan Area. [Footnote 31: Measure WQ-11b purports to address only EC impacts to Suisun Marsh and is not discussed here.] The "Other Commitments" listed in BDCP Draft EIR/EIS, Appendix 3B.2.1, need to be revised and incorporated into the BDCP EIS/EIR as mitigation measures in order to cure these defects.</p> <p>Mitigation Measures WQ-7a, WQ-11a and WQ-5:</p> <p>Measure WQ-7a, "Conduct Additional Evaluation and Modeling of Increased Chloride Levels Following Initial Operations of CM1," provides:</p> <p>"Following commencement of initial operations of CM1, the BDCP proponents will conduct additional evaluations described herein, and develop additional modeling (as necessary), to define the extent to which modified operations could reduce or eliminate the additional exceedances of the 250 mg/L Bay-Delta WQCP objective [Footnote 32: As discussed in detail below, Mitigation Measure WQ-7a is fundamentally flawed and needs to be rewritten. When it is rewritten, the reference to reducing or eliminating only the "additional exceedances of the 250 mg/L Bay-Delta WQCP objective for chloride" must be replaced. As the BDCP Draft EIR/EIS states, the BDCP will also significantly increase exceedances of the 150 mg/L Bay-Delta WQCP objective for municipal and industrial beneficial uses and substantially reduce assimilative capacity, and the BDCP will cause long-term water quality degradation. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-426 - 8-427. All of these impacts must be mitigated.] for chloride currently modeled to occur under Alternative 4. The additional evaluations should also consider specifically the change in Delta hydrodynamic conditions associated with tidal habitat restoration under CM4 (in particular the potential for increased chloride concentrations that could result from increased tidal exchange) once the specific restoration locations are identified and designed. If sufficient operational flexibility to offset chloride increases is not feasible under Alternative 4 operations, achieving chloride reduction pursuant to this mitigation measure would not be feasible under this alternative." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-430.</p> <p>Measure WQ-11a, which applies to EC, contains virtually identical provisions (BDCP Draft EIR/EIS, Chap. 8 at p. 8-441), as does Measure WQ-5 for bromide (id. at p. 8-422). All</p> | <p>The Draft EIR/EIS includes an extensive analysis of water quality impacts and discussion of proposed mitigation. See Chapter 8 and associated appendices. Chapter 8 of the Final EIR/EIS, including discussions of the impacts and appropriate mitigations on water quality constituents for each action alternative, has been modified since publication of the 2013 Draft EIR/EIS. This Final EIR/EIS presents feasible mitigation measures that discuss reducing the severity of impacts and meeting the requirements of CEQA and NEPA. Additionally please see Master Response 14. For additional explanations regarding project mitigation, feasibility of the mitigation please see Master Response 22 Mitigation.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS. Incremental changes in salinity under Alternatives 4A, 2D, and 5A as compared to the Existing Conditions and No Action Alternative are less than between action alternatives with large-scale habitat restoration and Existing Conditions and No Action Alternative.</p> <p>The commenter states that the mitigation measures are inadequate because they do not identify a performance standard and a description of the types of action that will be incorporated in the mitigation plan. The Lead Agencies disagree that the mitigation measures identified in the EIR/EIS do not comply with CEQA and NEPA, and the Lead Agencies intend to comply with CEQA and NEPA requirements in the development and implementation of a Mitigation Monitoring and Reporting Program as required in Pub. Resources Code, § 21081.6, subd. (a)(1); CEQA Guidelines, § 15097. For more information regarding water quality impacts and mitigation, please see Master Response 14 related to water quality issues identified in comments. Please also refer to Master Response 22 which addresses issues raised regarding the feasibility of mitigation. Some of the mitigation measures for Alternatives 4A, 2D and 5A have been revised since publication of the RDEIR/SDEIS and are included in Chapter 8 of this Final EIR/EIS.</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 Draft EIR/EIS. Alternative 4, the proposed BDCP, remains a potentially viable alternative and is being carried forward in this EIR/EIS because it represents the original habitat conservation plan/natural community conservation plan (HCP/NCCP) alternative approach, and because it provides an important reference point from which the Alternative 4A, 2D, and 5A descriptions and analyses were developed. If the Lead Agencies ultimately choose the alternative implementation strategy and select an alternative presented in this Final EIR/EIS, elements of the conservation plan contained in the alternatives in the 2013 Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. Alternatives 4A, 2D and 5A do not include Conservation Measures (which are specifically required under Section 10 of the federal ESA). Rather,</p> |

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| | | <p>three measures are defective in several respects.</p> <p>First, the measures contradict the BDCP Draft EIR/EIS's statements, that "mitigation measures to reduce these water quality effects in affected water bodies to less-than-significant levels are not available." BDCP Draft EIR/EIS, Chap. 8 at pp. 8-429 (emphasis added), 8-440, 8-421. Measures WQ-7a, WQ-11a and WQ-5 tacitly reject this conclusion and state that with additional analysis, the BDCP proponents may learn that BDCP-caused exceedances of water quality objectives and goals for chloride, EC and bromide could be reduced or even eliminated through modified operations, even taking into account the anticipated effects of habitat restoration under CM4. BDCP Draft EIR/EIS, Chap. 8 at pp. 8-430, 8-441, 8-422. This discrepancy must be resolved in a revised EIR/EIS.</p> <p>The second difficulty with these mitigation measures is their deferral of "additional evaluations" until after "commencement of initial operations of CM1." This deferral is unlawful for several reasons. The first is that the BDCP Draft EIR/EIS states that tidal marsh restoration projects comprising BDCP element CM4 will be constructed before CM1 operations begin. (This is so even though the BDCP Draft EIR/EIS analyzes CM4 only at a general "program" level.) The BDCP Draft EIR/EIS acknowledges that CM4 could cause increased chloride concentrations. BDCP Draft EIR/EIS, Chap. 8 at p. 8-430. The fact that the BDCP's chloride impacts are planned to begin well before the BDCP proponents plan to even begin thinking about chloride mitigation is a CEQA and NEPA violation.</p> <p>In addition, mitigation cannot be deferred to "future study" without a legally defensible explanation of why the study cannot be conducted for the EIR. S. Kostka & M. Zischke, Practice Under the California Environmental Quality Act (CEB 2014) at pp. 14-14 to 14-18; San Joaquin Raptor Rescue Center v. County of Merced, 149 Cal. App. 4th 645, 669-71 (2007). Nothing in the BDCP Draft EIR/EIS water quality analysis explains why the project proponents cannot now "define the extent to which modified operations could reduce or eliminate the additional exceedances of the 250 mg/L Bay-Delta WQCP objective for chloride currently modeled to occur under Alternative 4." The BDCP proponents identified significant chloride impacts through modeling; they can use modeling to evaluate how modifications to planned operations could or could not reduce those impacts. The same is true of EC and bromide. It is not enough to identify an impact; the BDCP Draft EIR/EIS must take the next step to identify feasible mitigation to reduce, avoid or compensate for the impact.</p> <p>Third, the mitigation measures are legally inadequate because they do not identify a performance standard that must be achieved and the types of action that will be incorporated in the mitigation plan after those studies are completed. A "mitigation measure calling for a mitigation plan to be devised on the basis of future studies is legally inadequate if it does not identify the type of actions that may be incorporated in the plan after those studies are completed." Kostka & Zischke at pp. 14-14 to 14-18 (citing Preserve Wild Santee v. City of Santee, 210 Cal. App. 4th 260, 280 (2012); Communities for a Better Environment v. City of Richmond, 184 Cal. App. 4th 70, 95 (2010); Gray v. County of Madera, 167 Cal. App. 4th 1099, 1119 (2008); and other cases). Further, the BDCP Draft EIR/EIS must demonstrate that the actions would be capable of substantially reducing the impact. See Communities for a Better Environment, 184 Cal. App. 4th at 95.</p> <p>Fourth, none of the BDCP Draft EIR/EIS's chloride, EC, or bromide mitigation measures addresses the significant impacts that the EIR/EIS states will begin when BDCP operations</p> | <p>limited elements of the previously proposed Conservation Measures are included as "Environmental Commitments" under Alternative 4A to mitigate significant environmental effects under CEQA and meet the regulatory standards of ESA Section 7 and CESA Section 2081(b).</p> |

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| | | <p>-- CM4 or CM1 -- begin. Mitigation must address impacts as soon as they are anticipated to occur. POET, LLC v. California Air Resources Board, 218 Cal. App. 4th 681, 740 (2013) ("mitigation itself cannot be deferred past the start of the project activity that causes the adverse environmental impact"). Here, the BDCP Draft EIR/EIS states that the project proponents' intent is to allow significant impacts to occur, then study whether they might modify their operations to reduce such impacts (Measures WQ-7a, WQ-11a and WQ-5), and then, in the case of chloride only, "consult with" water purveyors such as CCWD "to identify any feasible operational means to either avoid, minimize, or offset for reduced seasonal availability of water that meets applicable water quality objectives...." (Measure WQ-7b, discussed below). This is impermissible under CEQA and NEPA. The consultation needs to occur now, and the mitigation should be in place before commencement of operations of the conveyance facilities, marsh restoration or any other activities that might contribute to the impacts.</p> <p>Fifth, Measures WQ-7a, WQ-11a and WQ-5 commit the BDCP proponents to nothing more than "evaluation" and "modeling." They do not commit the BDCP proponents to implement any feasible mitigation that their additional studies might identify. Studies alone are not mitigation; CEQA requires legally binding commitments to implement feasible mitigation. Cal. Pub. Res. Code [Section] 21081.6(b); CEQA Guidelines [Section] 15126.4(a)(2).</p> <p>Sixth, Measures WQ-7a, WQ-11a, and WQ-5 do not identify which BDCP proponents might be responsible for implementing any deferred mitigation that might ultimately be adopted. Given that the term "BDCP Proponents ..." should be understood to mean different entities in different contexts" (BDCP Draft EIR/EIS, Executive Summary at p. ES-48), the BDCP Draft EIR/EIS should identify which would be responsible for mitigation measures and not defer that identification until a Mitigation Monitoring and Reporting Program is approved.</p> <p>Finally, these mitigation measures exemplify the "paper mitigation" that both CEQA and NEPA forbid. The answer to "Is this measure a specific tangible action that will reduce a physical environmental effect?" is "No."</p> | |
| 1563 | 168 | <p>Mitigation Measure WQ-7b (Chloride):</p> <p>Mitigation Measure WQ-7b, "Consult with Delta Water Purveyors to Identify Means to Avoid, Minimize or Offset for Reduced Seasonal Availability of Water That Meets Applicable Water Quality Objectives," provides:</p> <p>"To determine the feasibility of reducing the effects of CM1/CM4 operations on increased chloride concentrations as shown in modeling estimates to occur to municipal and industrial locations, the BDCP proponents will consult with the purveyors to identify any feasible operational means to either avoid, minimize, or offset for reduced seasonal availability of water that meets applicable water quality objectives and that results in levels of degradation that do not substantially increase the risk of adversely affecting the municipal and industrial beneficial use. Any such action will be developed following, and in conjunction with, the completion of the evaluation and development of any potentially feasible actions described in Mitigation Measure WQ-7a." BDCP Draft EIR/EIS, Chap. 8 at p. 8-430.</p> | <p>For quantitative constituents, e.g. chloride, Existing Conditions is a modeled scenario based on current system requirements, regulations, and operations, overlaid on historical hydrology to account for the range of potential hydrological conditions that are expected. It does not replicate historical operations.</p> <p>There are no criteria established for EC in the NTR or CTR. The secondary MCL for EC is specified as a range: 900 microSiemens per centimeter ($\mu\text{S}/\text{cm}$) ($1.9 \mu\text{S}/\text{cm}=1 \mu\text{mhos}/\text{cm}$) (recommended), $1,600 \mu\text{S}/\text{cm}$ (upper), and $2,200 \mu\text{S}/\text{cm}$ (short-term), and is applicable to all surface waters in the affected environment, other than the Delta, that have the municipal and domestic supply beneficial use designation. 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. The Bay-Delta WQCP contains EC objectives for the Delta for agricultural and fish and wildlife beneficial use protection, which vary by month and water-year type (see Appendix 8A). The Bay-Delta WQCP EC objectives for agricultural protection are designed primarily to control salinity conditions in the interior and southern Delta channels, and San Joaquin River inflow to the Delta at Vernalis, which tend to have higher salinity concentrations and are influenced most by Delta exports. Table 8-13a summarizes the record of compliance with the Delta EC objectives that are specified in the Bay-Delta WQCP.</p> |

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| | | <p>The BDCP Draft EIR/EIS contains no equivalent measures for EC or bromide.</p> <p>Mitigation Measure WQ-7b suffers from most of the same defects as Measure WQ-7a. First, the formulation and implementation of the mitigation is impermissibly deferred. The time for the BDCP proponents to consult with water purveyors "to identify any feasible operational means to either avoid, minimize, or offset for reduced seasonal availability" of acceptable water is now, not after the BDCP is approved and operating.</p> <p>Second, as noted above regarding Mitigation Measure WQ-7a, the BDCP Draft EIR/EIS does not even attempt in Mitigation Measure WQ-7b to address early water quality impacts that would begin when levees are breached and new marshland is created under CM4 -- even before the CM1 pipeline opens. This is unlawful.</p> <p>Finally, nothing in Mitigation Measure WQ-7b requires the BDCP proponents to do anything to actually mitigate water quality impacts to the operations of water purveyors. The measure requires only tardy consultation with water purveyors to "identify any feasible operational means" to mitigate impacts and potentially to "develop" "any such actions." Consultation is not mitigation. To meet legal requirements, the BDCP Draft EIR/EIS must identify mitigation measures that include concrete performance standards and actual commitments to action.</p> | <p>For other constituents assessed quantitatively (See Appendix 8C, Table SA-11) for which concentrations were not directly estimated by DSM2—boron, bromide, chloride, mercury, methylmercury, nitrate, selenium, mean monthly flow-fraction output from DSM2 was used in mass-balance calculations (processed outside of DSM2) to estimate constituent concentrations. The flow-fraction output from DSM2 is the average percentage of water at each specified Delta location that was constituted by the five primary source waters (i.e., SAC, SJR, eastside tributaries [EST], BAY, and AGR). These flow-fractions were used together with source water constituent concentrations derived from historical data to estimate a given constituent concentration at assessment locations according to an equation as detailed in Appendix 8C, page 8-54.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> <p>The EIR/EIS analyzes all alternatives, including Alternative 4A. 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 EIR/EIS Mitigation Monitoring and Reporting 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>Please see Master Response 30 related to Modeling, Master Response 4 related to Alternatives Analysis, and Master Response 14 related to Water Quality.</p> |
| 1563 | 169 | <p>The Water Quality chapter of the BDCP Draft EIR/EIS does not identify adequate mitigation for significant DOC (dissolved organic carbon) impacts.</p> <p>The BDCP Draft EIR/EIS identifies a significant impact to water purveyors from increases in DOC (dissolved organic carbon) resulting from implementation of CM4 through CM7 and CM10, which "include land disturbing restoration activities known to be sources of DOC." BDCP Draft EIR/EIS, Chap. 8 at p. 8-456. The BDCP Draft EIR/EIS explains:</p> <p>"Depending on localized hydrodynamics, such restoration activities could contribute substantial amounts of DOC to municipal raw water if established near municipal intakes. Substantially increased DOC concentrations in municipal source water may create a need for existing drinking water treatment plants to upgrade treatment systems in order to achieve EPA Stage 1 Disinfectants and Disinfection Byproduct Rule action thresholds. While treatment technologies sufficient to achieve the necessary DOC removals exist, implementation of such technologies would likely require substantial investment in new or modified infrastructure.</p> <p>...</p> <p>"The impact is considered to be significant and mitigation is required. It is uncertain whether implementation of Mitigation Measure WQ-18 would reduce identified impact to a less-than-significant level. Hence, this impact remains significant and unavoidable."</p> | <p>The water quality assessment in Chapter 8 of the EIR/EIS for the Delta region concluded that the separate impacts of the water conveyance facilities on dissolved oxygen would not be adverse. Please see Master Response 14 related to the Water Quality Analysis.</p> <p>The environmental documents adequately describe mitigation related to impacts and performance measures where detailed commitments are not ascertained. Please see Master Response 22.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives or the HCP process as in the 2013 Draft EIR/EIS.</p> |

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| | | <p>BDCP Draft EIR/EIS, Chap. 8 at p. 8-457 (emphasis added).</p> <p>Mitigation Measure WQ-18, "Design Wetland and Riparian Habitat Features to Minimize Effects on Municipal Intakes," may represent a reasonable attempt to avoid some of the BDCP's significant impact to municipal water sources. But, as the BDCP Draft EIR/EIS states, the measure is incomplete; the effort to avoid significant DOC impacts by adjusting restoration plans themselves may not be successful because of the BDCP proponents' overriding BDCP objectives. Measure WQ-18 provides:</p> <p>"The BDCP proponents will design wetland and riparian habitat features taking into consideration effects on Delta hydrodynamics and impacts on municipal intakes. Locate restoration features such that impacts on municipal intakes are minimized and habitat benefits are maximized. Incorporate design features to control the load and/or timing of DOC exports from habitat restoration features. This could include design elements to control seepage from non-tidal wetlands (e.g., incorporation of slurry walls into levees), and features to increase retention time and decrease tidal exchange in tidal wetlands and riparian and channel margin habitat designs. For restoration features directly connected to open channel waters, design wetlands with only channel margin exchanges to decrease DOC loading. Stagger construction of wetlands and channel margin/riparian sites both spatially and temporally so as to allow aging of the restoration features and associated decreased creation of localized "hot spots" and net Delta loading.</p> <p>"The BDCP proponents will also establish measures to help guide the design and creation of the target wetland habitats. At a minimum, the measures should limit potential increases in longer-term average DOC concentrations, and thus guide efforts to site, design, and maintain wetland and riparian habitat features, consistent with the biological goals and objectives of the BDCP. For example, restoration activities could be designed and located with the goal of preventing, consistent with the biological goals and objectives of the BDCP, net long-term average DOC concentration increases of greater than 0.5 mg/L at any municipal intake location within the Delta.</p> <p>"However, it must be noted that some of these measures could limit the benefit of restoration areas by limiting the amount of carbon supplied by these areas to the Delta as a whole. In some cases, these measures would run directly counter to the goals and objectives of the BDCP. This mitigation measure should not be implemented in such a way that it reduces the benefits to the Delta ecosystem provided by restoration areas. As mentioned above, the BDCP proponents have 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 DOC concentration effects on municipal and industrial water purveyor operations." BDCP Draft EIR/EIS, Chap. 8 at p. 8-458 (emphasis in original and added).</p> <p>As discussed further below, nothing in CEQA or NEPA permits project proponents to identify mitigation that the BDCP Draft EIR/EIS admits would not or may not reduce impacts to less than significant, and then stop short of identifying additional compensatory mitigation that would further reduce the impact. See CEQA Guidelines [Section] 15370; 40 C.F.R. [Section] 1508.20. The BDCP Draft EIR/EIS's mitigation for DOC shares this fundamental flaw with the mitigation for chloride, EC and bromide. It is one step to identify operational objectives to reduce DOC impacts to drinking water. The BDCP Draft EIR/EIS needs to now take the next step required by CEQA and NEPA: identify</p> | |

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| | | performance standards that would be achieved, provide a menu of options for achieving those standards, and include a binding commitment to actually mitigate the impact. | |
| 1563 | 170 | <p>Defects in the BDCP Draft EIR/EIS mitigation measures are not cured by "other commitments" in Appendix 3B; the "other commitments" need to be revised and incorporated into the BDCP EIS/EIR as mitigation measures.</p> <p>Chapter 8 of the BDCP Draft EIR/EIS refers the reader to a separate "non-environmental commitment" in BDCP Draft EIR/EIS Appendix 3B that, the BDCP Draft EIR/EIS asserts, "supplements" Mitigation Measures WQ-7, WQ-11, WQ-5 and WQ-18. As currently drafted, this "commitment" is defective for two reasons. First, the measures listed in the appendix must be treated as mitigation measures for the project's identified significant impacts, not as "non-environmental commitments," and second, the measures listed in the "non-environmental commitments" must be revised in order to pass muster as mitigation measures.</p> <p>The BDCP Draft EIR/EIS states:</p> <p>"In addition to and to supplement Mitigation Measure WQ-7, the BDCP proponents have 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 chloride concentration effects on municipal, industrial and agricultural water purveyor operations. Potential options for making use of the financial commitment include funding or providing other assistance towards acquiring alternative water supplies or towards modifying existing operations when chloride concentrations at a particular location reduce opportunities to operate existing water supply diversion facilities. Please refer to Appendix 3B, Environmental Commitments, for the full list of potential actions that could be taken pursuant to this commitment in order to reduce the water quality treatment costs associated with water quality effects relating to chloride, electrical conductivity, and bromide." BDCP Draft EIR/EIS, Chap. 8 at p. 8-429 (emphasis in original and added). See id. at pp. 8-440 to 8-441 (EC), 8-421 to 8-422 (bromide), 8-458 (DOC, quoted above).</p> <p>If the BDCP proponents find it infeasible to adjust their own project operations to reduce water quality impacts at water purveyor intakes to a less-than-significant level, then the measures needed to offset BDCP-caused impacts are environmental mitigation measures, not "non-environmental commitments." The fact that water purveyors and their customers would suffer disproportionately from the water quality impacts of the BDCP does not render those significant environmental impacts "non-environmental" or somehow negate the BDCP proponents' obligation to mitigate those impacts. Compensating for a significant environmental impact "by providing substitute resources or environments" falls squarely within CEQA's and NEPA's definition of "mitigation." CEQA Guidelines [Section] 15370; 40 C.F.R. [Section] 1508.20. Such measures must be identified and analyzed in the BDCP Draft EIR/EIS, and subjected to public comment; they cannot be downgraded to a "non-environmental commitment" and then left for another day.</p> | <p>As part of the planning and environmental assessment process, the project proponents incorporated environmental commitments 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 action alternatives include environmental commitments as part of the project construction activities (see Appendices 3B and 3C of the EIR/EIS). 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.</p> <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the initial stages of the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., locations of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be coordinated and submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate. Please see Master Response 22 regarding mitigation measures.</p> |
| 1563 | 171 | <p>BDCP Draft EIR/EIS Appendix 3B.2:</p> <p>The "Other Commitments" discussion in BDCP Draft EIR/EIS Appendix 3B.2 both illustrates and exacerbates the BDCP Draft EIR/EIS's incorrect approach to water quality mitigation.</p> | <p>Project commitments through mitigation related to Water Quality impact are summarized in the Executive Summary(s) and detailed in Chapters 8 of the EIR/EIS. Appendix 3B of the EIR/EIS includes environmental commitments that are part of the project descriptions of each action alternative.</p> |

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| | | <p>The discussion begins:</p> <p>"The following commitments are identified separately from environmental commitments for the purpose of addressing some of the economic or other non-environmental consequences of implementing BDCP. As with environmental commitments, these other commitments are incorporated into the project and would be implemented in the same or similar manner as proposed mitigation measures. These additional commitments are actions that the BDCP proponents commit to implementing in some manner to reduce or partially reduce potential economic or other effects related to the environmental impacts disclosed in this EIR/EIS and caused by implementation of the project, even if the underlying environmental impact is not fully reduced or remains unchanged." BDCP Draft EIR/EIS Appendix 3B at p. 3B-42 (emphasis added).</p> <p>As discussed above, this statement misapprehends the nature and role of mitigation under CEQA and NEPA. The fact that an entity cannot avoid, and instead must compensate for, an undeniable significant environmental impact does not take such compensation out of the category of environmental mitigation and into the realm of compensation for mere "economic" effects. If the BDCP proponents were right, no environmental mitigation measures could ever be imposed on project proponents to address the impacts of their projects other than changes in project operations; all other mitigation measures require direct expenditures of money. Familiar examples include the acquisition and enhancement of compensatory wetlands or species habitat, the purchase and planting of replacement trees, and the purchase of emissions credits to offset project air emissions. Kostka & Zischke at p. 14-9. Moreover, the requirement that compensatory mitigation be provided for impacts to water supply was firmly applied in <i>Gray v. County of Madera</i>, supra, in which an EIR found that a quarry project could reduce water in neighboring wells. The EIR included mitigation measures to a) rehabilitate or deepen the private wells; b) provide a connection to the project's water system; or c) provide bottled water or other potable water in large tanks; and was amended to add the option of building a "water system constructed under federal, state, and county guidelines." 167 Cal. App. 4th at 1115-1116. The court held that the first three measures were inadequate because they would not "allow the landowners to use water in a manner substantially similar to how the landowners are currently using water" and that the fourth mitigation option -- the construction of a new water system -- was inadequate because its feasibility and impacts had not been analyzed. Id. at 1119-1120. That compensatory mitigation -- i.e., mitigation "replacing or providing substitute resources or environments" -- was required was not questioned; the EIR and project approvals failed for lack of analysis of the specific means by which compensatory mitigation might be provided. Here, as in <i>Gray</i>, compensatory mitigation must be specifically identified and analyzed as compensatory mitigation under CEQA and NEPA; it cannot be shunted aside into "Other Commitments."</p> | <p>The commenter asserts the other commitments cannot be considered compensatory mitigation. In response to this comment and similar comments please see Master Response 22 for additional details regarding the project commitments and mitigation have been provided in the Final EIR/EIS. The lead agencies will adopt a Mitigation, Monitoring and Reporting Plan with additional details on the project mitigation implementation and performance measures, as appropriate.</p> |
| 1563 | 172 | <p>BDCP Draft EIR/EIS Appendix 3B.2.1:</p> <p>The measures listed in Appendix 3B.2.1 to address the BDCP's significant impacts to municipal and domestic water sources must be treated as environmental mitigation measures, not as "non-environmental commitments." The appendix measures must, however, be substantially revised and improved before they are incorporated into the BDCP Draft EIR/EIS mitigation measures, as described below.</p> | <p>As described in Appendix 3B, the commitments included in Section 3.B.3 of the EIR/EIS are presented in response to economic effects that could continue following implementation of available mitigation measures that may result in less than significant effects or could continue to result in significant and unavoidable effects that would be addressed in the DWR Notice of Determination and the Reclamation Record of Decision. CEQA does not specifically analyze economic impacts that are not caused by physical impacts or result in physical impacts of the proposed project. The lead agencies are committing to the</p> |

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| | | <p>Appendix 3B.2.1 begins with two paragraphs describing the commitments the BDCP proponents propose to undertake. BDCP Draft EIR/EIS, Appendix 3B at pp. 3B-42 to 3B-43. These two paragraphs could form the basis for an adequate mitigation measure with two exceptions that must be corrected. The first defect is that the formulation and implementation of the mitigation measures are unduly deferred. Section 3B.2.1 states: "It is anticipated that such solutions would be devised by the affected purveyors in consultation with BDCP proponents after thorough investigation and the completion of environmental review." BDCP Draft EIR/EIS, Appendix 3B at p. 3B-42. As discussed above, however, the time for environmental review of the BDCP, including identification of the mitigation measures BDCP implementation would necessitate, is now. And the time to implement those measures is before impacts occur.</p> <p>The second defect in Section 3B.2.1 is that the BDCP proponents do not accept their responsibility to mitigate the BDCP's contribution to significant cumulative impacts. The BDCP Draft EIR/EIS acknowledges that the BDCP is anticipated to cause significant water quality impacts with respect to chloride, electrical conductivity (EC), bromide and dissolved organic carbon (DOC) regardless of whether climate change and other projects also contribute to those impacts. But even if the BDCP is only a contributor to significant water quality impacts along with climate change (which is itself the quintessential significant cumulative impact) and one or more other projects, the BDCP Draft EIR/EIS must identify and analyze mitigation for the BDCP's contribution to the significant cumulative impact. CEQA Guidelines [Section] 15130(b)(3). Appendix 3B.2.1 disclaims this obligation, stating:</p> <p>"Assistance shall not extend to investments needed solely or substantially to address adverse water quality effects due to any of the following: sea level rise and/or changed precipitation patterns attributable to climate change; the regulatory actions of other agencies or programs within or upstream of the Delta that may affect water quality; or effects not otherwise associated with operations of CM1." BDCP Draft EIR/EIS, Appendix 3B at p. 3B-43. (emphasis added)</p> <p>CEQA and NEPA do not permit project proponents to avoid their obligation to mitigate their contributions to significant environmental impacts by pointing out that others will also "substantially" contribute to the need for such investments. Because the BDCP's contributions to significant chloride, EC, bromide and DOC impacts would be cumulatively considerable, as the BDCP Draft EIR/EIS concludes they would, the BDCP proponents must identify and analyze mitigation measures for the BDCP's contributions to the cumulative impact -- regardless of whether other projects or projected conditions also would "substantially" contribute to the cumulative impact.</p> | <p>actions included in Section 3.B.3 as part of the project descriptions.</p> <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the design phase, operational and design plans will be finalized and included efforts to obtain permits and approvals from multiple entities. With respect to water quality issues, this coordination would include coordination with other water users of Delta water, as appropriate.</p> <p>Please see Master Response 22 related to Mitigation Measures.</p> |
| 1563 | 173 | <p>BDCP Draft EIR/EIS Appendix 3B.2.1.1 Chloride and EC:</p> <p>Appendix 3B.2.1.1 identifies five measures "affected purveyors could consider" to address adverse effects of increased chloride concentrations and EC (electrical conductivity). Three of these measures may be intended to apply to Contra Costa Water District (CCWD). It is the responsibility of the BDCP proponents, and not primarily that of the affected purveyors, to "consider" these measures and to adopt them as binding commitments to reduce, avoid or compensate for the significant impacts of the BDCP. Nevertheless, CCWD offers the following comments, which demonstrate that compensatory mitigation must be identified and analyzed. The first two measures in</p> | <p>As described in Appendix 3B, the commitments included in Section 3.B.3 of the EIR/EIS are presented in response to economic effects that could continue following implementation of available mitigation measures that may result in less than significant effects or could continue to result in significant and unavoidable effects that would be addressed in the DWR Notice of Determination and the Reclamation Record of Decision. CEQA does not specifically analyze economic impacts that are not caused by physical impacts or result in physical impacts of the proposed project. The lead agencies are committing to the actions included in Section 3.B.3 as part of the project descriptions.</p> <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the design phase, operational and design plans will be finalized and included efforts to obtain permits and approvals from multiple entities. With respect to water quality issues, this coordination would include</p> |

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| | | <p>Appendix 3B.2.1.1 read as follows:</p> <p>"Provide Funding Assistance to Acquire Alternative in-Basin Water Supplies, Storage, Conjunctive Uses, or Develop Water Transfers (municipal uses). Additional water supply improvement projects or agreements could be developed to facilitate improved blending water quality to reduce chloride. This concept could be applied to potential Los Vaqueros Reservoir effects based on investigations recommend[ed] in Mitigation Measure WQ-7....</p> <p>"Develop Water Supply Connections to SWP Facilities or BDCP Intertie (municipal uses). Water supply supplement/replacement actions or agreements could be developed [to] provide an alternative water supply during poor Delta water quality periods." EIR/EIS Appendix 3B, p. 3B-43.</p> <p>These two measures must be evaluated as components of the menu of mitigation options to compensate for chloride impacts at CCWD intakes. Salinity increases in the Delta would reduce the period during which CCWD can fill Los Vaqueros Reservoir with high-quality water, increase the need to release water from Los Vaqueros Reservoir for blending, reduce the quantity of emergency and drought water supplies stored in Los Vaqueros Reservoir, and reduce the amount of time when Los Vaqueros Reservoir can be used for its fundamental purpose of enabling CCWD to deliver low-salinity water to its customers. Providing replacement quantities of high-quality water, along with additional measures, must be considered to determine whether such an approach would be feasible and effective.</p> <p>The measures quoted above require more specific formulation and analysis in the BDCP Draft EIR/EIS. First, the BDCP Draft EIR/EIS must include a commitment to meet a performance standard: Replacement water sources will be secured and provided to CCWD at sufficient quality and quantity to be used to blend with water from CCWD's intakes such that impacts to water quality at CCWD's intakes are fully mitigated and any impact to the quality of water delivered to CCWD's customers and the quantity of water stored at Los Vaqueros Reservoir is avoided. CCWD staff is available to meet with the project proponents to develop a menu of potentially feasible measures to accomplish this performance standard.</p> <p>In addition to specifying a performance standard and a list of measures that would be implemented to achieve that standard, the BDCP Draft EIR/EIS must study the environmental effects of the mitigation measures.</p> <p>The third measure in Appendix 3B.2.1.1 reads as follows:</p> <p>"Develop demand management and/or conservation/recycling projects to extend available water supplies (municipal uses). Facilitation and development of additional demand management, water conservation, and wastewater recycling projects would help reduce use of Delta diversion facilities when water quality is poor allowing for more efficient use of other existing water supplies." BDCP Draft EIR/EIS, Appendix 3B at p. 3B-43.</p> <p>CCWD currently implements a water demand management program. Such programs would not be sufficient to mitigate the significant water quality impacts of the BDCP on the Los Vaqueros Reservoir, which is needed for blending and emergency and drought</p> | <p>coordination with other water users of Delta water, as appropriate.</p> <p>Please see Master Response 22 related to Mitigation Measures.</p> |

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| | | supply purposes. And such a measure seems disingenuous considering the BDCP proponents have rejected alternatives to CM1 that would implement demand management programs in their own jurisdictions in order to reduce their demand for Delta exports. | |
| 1563 | 174 | <p>BDCP Draft EIR/EIS Appendix 3B.2.1.2 Bromide:</p> <p>The BDCP Draft EIR/EIS improperly fails to acknowledge the BDCP's significant impact on bromide levels at Contra Costa Water District's (CCWD) intake at Mallard Slough. For that reason, the measures identified in Appendix 3B.2.1.2 focus on other locations, but the concepts must be applied, described in greater detail, and analyzed for the impact at Mallard Slough. The bromide measure that is conceptually applicable to CCWD's intake at Mallard Slough is:</p> <p>"Provide Funding Assistance to Acquire Alternative in-Basin Water Supplies, Groundwater Banking, or Conjunctive Uses. Additional water supply improvement projects or agreements could be developed to facilitate reduced use of the North Bay Aqueduct (NBA) and improved water supply blending quality, to reduce potential disinfection byproducts (DBP) formation potential."</p> <p>Providing replacement quantities of high-quality water, along with additional measures, must be evaluated to determine whether it is a feasible and effective method to substantially reduce this significant effect. However, the measure quoted above requires more specific formulation; it must be described in detail and analyzed in the BDCP Draft EIR/EIS as an enforceable mitigation measure.</p> <p>BDCP Draft EIR/EIS Appendix 3B.2.1.3 Dissolved Organic Carbon (DOC):</p> <p>Appendix 3B.2.1.3 identified two "concepts" that "could be considered" to address adverse effects of increased DOC concentrations. These concepts must be converted into specific mitigation measures that are described and analyzed in the BDCP Draft EIR/EIS proper and not treated as "non-environmental commitments." The concepts are:</p> <p>"Provide funding to implement treatment for DOC and/or DBPs in water treatment facilities. This could include pre-treatment of DOC or modification of disinfection facilities to minimize DBP formation, or post-disinfection treatment for DBPs or modifications to distribution systems to limit DBP formation.</p> <p>"Develop DOC source control projects. Agricultural and/or other waste control projects could be developed to reduce effects of watershed runoff on DOC levels. DOC reduction would reduce DBP formation potential."</p> <p>In addition to converting these concepts into mitigation, the BDCP proponents must analyze the same mitigation measures as for chloride, electrical conductivity and bromide.</p> | <p>As described in Appendix 3B, the commitments included in Section 3.B.3 of the EIR/EIS are presented in response to economic effects that could continue following implementation of available mitigation measures that may result in less than significant effects or could continue to result in significant and unavoidable effects that would be addressed in the DWR Notice of Determination and the Reclamation Record of Decision. CEQA does not specifically analyze economic impacts that are not caused by physical impacts or result in physical impacts of the proposed project. The lead agencies are committing to the actions included in Section 3.B.3 as part of the project descriptions.</p> <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the design phase, operational and design plans will be finalized and included efforts to obtain permits and approvals from multiple entities. With respect to water quality issues, this coordination would include coordination with other water users of Delta water, as appropriate.</p> <p>Please see Master Response 22 related to Mitigation Measures.</p> |
| 1563 | 175 | <p>The BDCP Draft EIR/EIS fails to identify mitigation for unacknowledged significant impacts affecting Contra Costa Water District operations.</p> <p>The BDCP is likely to cause significant water quality impacts from increased concentrations of bromide, organic carbon, dissolved organic matter, and nitrogen leading to harmful byproducts of drinking water disinfection; increased concentrations of</p> | <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the initial stages of the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., locations of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be coordinated and submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate. Also, please see</p> |

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| | | <p>algae and algal byproducts; altered drainage patterns and the potential for levee failure. Additionally, the BDCP would have significant impacts on CCWD's water supply. Finally, construction-phase impacts to CCWD facilities or other facilities upon which CCWD relies would impact both water supply and water quality. The BDCP Draft EIR/EIS does not acknowledge any of these impacts and identifies no mitigation for them. These omissions must be rectified in a revised BDCP EIR/EIS.</p> <p>Specifically with respect to construction impacts to access to CCWD facilities, one feasible mitigation measure would be to enter into an agreement among CCWD, the Bureau of Reclamation, and the Western Area Power Administration to ensure that CCWD facilities are protected, that access to the facilities would not be interrupted during construction, that construction schedules would be coordinated with local agencies and stakeholders, and that CCWD is fully indemnified against any damage, including any flooding of Victoria Island, due to accidents or otherwise, that could result from project tunneling operations or other construction activities.</p> | Master Response 22 regarding mitigation measures. |
| 1563 | 176 | <p>Construction of the tunnels for CM1 could also cause land subsidence and levee failures. These effects have not been adequately analyzed, and legally adequate mitigation has not been identified. The BDCP Draft EIR/EIS improperly bases its conclusion that no mitigation is needed on the fact that future geotechnical studies would be performed as part of the project. BDCP Draft EIR/EIS, Chap. 10 at p.10-94. The BDCP Draft EIR/EIS does not specify where the future studies would be conducted. BDCP Draft EIR/EIS, Appendix 3B at p. 3B-6 (stating that the locations of borings and other test locations will be determined later). If the future geotechnical studies indicate that "settlement is likely in certain areas" (which are not specified), pre-excavation grouting would be conducted and undefined "[f]urther protection methods and associated monitoring programs would be evaluated during design and implemented during construction if required." BDCP Draft EIR/EIS, Appendix 3B at p. 3B-7 (emphasis added). The goal of the undefined monitoring program -- which may or may not be required -- would be to ensure that settlement is "controlled within acceptable limits," which similarly are not specified. BDCP Draft EIR/EIS, Appendix 3B at p. 3B-7.</p> <p>The vaguely defined, possible future "protection" measures, to be generated from studies that have not yet been conducted, are insufficient to ensure that the substantial impacts from land subsidence would be rendered insignificant and do not require any mitigation. Instead, site-specific geotechnical investigations should be firmly required at each point where the project crosses a levee or an existing conveyance facility to assess the magnitude and extent of potential ground settlement. Specific protocols and protection measures should be established as concrete, enforceable requirements to address potential settlement; specific monitoring provisions should be identified and mandated; and the "acceptable limits" of subsidence should be clearly defined, with input from affected stakeholders. Project construction should not increase the risk of levee failure and defined measures should be provided in the BDCP EIR/EIS to ensure that risk is minimized or avoided.</p> <p>Still more significant impacts may be revealed when the BDCP is adequately described and analyzed. If that occurs, mitigation measures meeting the standards described above must be identified and analyzed to address those impacts as well.</p> | <p>Following the completion of the EIR/EIS phase of the Project, the design phase would be initiated. During the initial stages of the design phase, site-specific surveys of geotechnical, topographic, and other conditions (e.g., locations of existing infrastructure) will be conducted. That information will be used to develop construction plans and specifications and permit applications that will be coordinated and submitted to federal, state, and local agencies, including Contra Costa Water District, as appropriate. Please see Appendices 3B and 3C of the Final EIR/EIS.</p> <p>Regarding the part of this comment pertaining to geotechnical studies, DWR prepared an expanded geotechnical investigation effort in October 2014, the Draft Geotechnical Exploration Plan – Phase 2. That document presents a general geotechnical exploration plan with the rationale, investigation methods, and criteria for obtaining subsurface soil information and laboratory test data to support preliminary engineering and final design of the Modified Pipeline/Tunnel Option (MPTO) with north Delta pumping plants as well as the MPTO with Clifton Court pumping plant. The program involves approximately 600 boring and cone penetration test locations. In proposed tunnel alignments and at pump shafts and safe haven areas, the explorations will include advancing boreholes to a depth of approximately 300 feet.</p> <p>Please see Master Response 22 related to Mitigation Measures.</p> |

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| 1563 | 177 | <p>Mitigation for the BDCP's Impacts Must Be Identified and Evaluated.</p> <p>The BDCP Draft EIR/EIS does not describe legally adequate mitigation for the project's acknowledged significant water quality impacts at Contra Costa Water District (CCWD) intakes. Nor does the document identify mitigation for the environmental impacts that the BDCP Draft EIR/EIS has missed or declined to acknowledge. Performance standards and a menu of options to substantially reduce these impacts must be identified and evaluated. CCWD is willing to meet with the BDCP proponents to discuss formulation of carefully defined mitigation measures for the BDCP's significant impacts to Delta water quality and supply, as well as for the project's construction-related impacts.</p> | <p>The alternatives and associated mitigation measures included in the EIR/EIS represent a reasonable range of alternatives and mitigation measures that are compliant with both CEQA and NEPA. Mitigation measures, environmental commitments, and descriptions of construction assumptions have been modified in the Final EIR/EIS since the publication of the 2013 Draft EIR/EIS in response to public and agency comments. Please see Master Response 22 related to Mitigation Measures.</p> |
| 1563 | 178 | <p>The evaluation of alternatives is inadequate.</p> <p>A fundamental policy of CEQA is that a public agency may not approve a project as proposed if there is a feasible alternative that would substantially lessen the project's significant environmental impacts. California Public Resources Code [Section] 21002. Thus, as the CEQA Guidelines explain, an EIR must evaluate alternatives that are capable of avoiding or reducing the project's significant impacts, even if the alternatives would impede to some degree the attainment of the project objectives. CEQA Guidelines [Section] 15126.6(b). Further, the evaluation of alternatives must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." Id. [Section] 15126.6(d).</p> <p>NEPA similarly emphasizes the importance of the alternatives analysis, which is "the heart" of the EIS. 40 C.F.R. [Section] 1502.14. The analysis must "[r]igorously explore and objectively evaluate all reasonable alternatives," including "reasonable alternatives not within the jurisdiction of the lead agency," to present a comparative analysis "sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." Id. Additionally, "[w]hen the proposed action is an integral part of a coordinated plan to deal with a broad problem, the range of alternatives that must be evaluated is broadened." <i>Natural Resources Defense Council v. Morton</i>, 458 F.2d 827, 835 (D.C. Cir. 1972).</p> <p>The analysis of alternatives in the BDCP Draft EIR/EIS does not comply with these fundamental principles. First, the BDCP Draft EIR/EIS improperly excludes from detailed consideration several alternatives that could substantially improve the reliability of water supplies for communities that rely on exports from the Delta while at the same time reducing the proposed project's significant environmental impacts. One prominent example is the "Portfolio" alternative, the consideration of which has been urged by a broad range of water districts, municipalities, environmental organizations, business groups, and elected officials. All reasonable alternatives must be given full and fair consideration so that the public and the state and federal decision-makers can meaningfully compare the options that are available.</p> <p>Second, the BDCP Draft EIR/EIS fails to include alternatives that involve a meaningful variation of the broad array of project components that make up Conservation Measures 2 through 22 (CM2 through 22). The document acknowledges that the implementation of these numerous conservation measures could cause significant environmental impacts, but the only project component that truly changes under the BDCP alternatives analysis is CM1. This constrained approach, which refuses to consider important variations in all but</p> | <p>The alternatives included in the Final EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> |

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| | | <p>one of the project elements, defeats the goal of presenting a rigorous and thorough evaluation of the options.</p> <p>Third, the BDCP Draft EIR/EIS uses a confusing approach that fails to present a clear comparison of the different alternatives that are evaluated. While the analysis presents 15 alternative physical configurations for the proposed water conveyance facilities, a comparative evaluation of the impacts from the configurations is obscured through the inconsistent application of different operational scenarios. This makes it impossible for even a sophisticated reader to isolate the potential impacts based on either the particular physical configuration or the particular operational scenario at issue. Instead of sharply defining the issues to provide a clear basis for a reasoned choice among the options (see 40 C.F.R. [Section] 1502.14), the analysis is blurred and ill-defined.</p> <p>The alternatives analysis in the BDCP Draft EIR/EIS fails to comply with CEQA and NEPA. The analysis needs to be redone.</p> | |
| 1563 | 179 | <p>The BDCP Draft EIR/EIS improperly omits detailed evaluation of alternatives that could improve water supply reliability while also reducing negative environmental impacts.</p> <p>The Portfolio alternative would involve a 3,000 cubic feet per second (cfs) north Delta intake and a single tunnel sized for 3,000 cfs gravity flow, with increased water storage south of the Delta, enhanced water recycling and conservation, and improvements to Delta levees (The Bay Institute et al., 2013). Consideration of this alternative has been urged by a diverse group of stakeholders including water agencies (Alameda County Water District et al., 2013), municipalities, business organizations, environmental groups, independent bodies, state agencies, and federal, state and local elected officials (NRDC, 2013b). The alternative could substantially improve the reliability of water supplies for those who depend on Delta exports, while at the same time significantly reducing the BDCP's environmental impacts and its enormous financial costs. But instead of giving the alternative a hard look, the BDCP Draft EIR/EIS dismisses it as beyond the scope of the proposed project. See BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81.</p> <p>The refusal to evaluate the Portfolio alternative, or a similar type of option, violates CEQA and NEPA. In responding to the Portfolio alternative, the State has made clear that "[t]he BDCP is governed by the legislatively-mandated co-equal goals to restore the ecosystem of the Delta and determine what water can be exported in a way that's environmentally sustainable and reliable in the face of an extreme event or disaster made more likely by climate change" (California Natural Resources Agency, 2013 at p. 1). Given that the Portfolio alternative represents a potentially feasible way of achieving, at least in large part, both of these co-equal goals, it should be studied in the BDCP Draft EIR/EIS.</p> <p>In dismissing the Portfolio alternative, the BDCP Draft EIR/EIS states that while the alternative has "much merit," its scope is "greater than can be achieved through a Delta-focused HCP/NCCP." BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81. This claim relies on circular reasoning to evade the obligation to study alternatives under CEQA and NEPA. In essence, this claim posits that the scope of the alternatives analysis for a proposal to build massive new water conveyance facilities, which would cause numerous significant impacts, is limited to the options that provide for the construction and operation of those same facilities. In other words, a legitimate proposal that would substantially lessen the project's impacts (NRDC 2013a) by achieving the project objectives in another manner is</p> | <p>Appendix 3A sets out various proposals analyzed in the EIR/EIS..</p> <p>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). DWR has no control over local water recycling and conservation, even with respect to the water agencies and water districts in California that receive SWP water from DWR, many of which are water wholesalers, and do not deal with retail water customers. Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> |

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| | | beyond the scope of the project, on the grounds that the project is designed to provide for the environmental permitting and approval of the operation of the project -- and nothing else. This position defies logic and is not a sound basis for excluding an evaluation of the Portfolio alternative. | |
| 1563 | 180 | <p>The BDCP Draft EIR/EIS similarly makes the spurious claim that DWR has no control over local water recycling and conservation. BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81. DWR's own webpage touts its water use efficiency programs, claiming that the agency "[p]rovides expertise to local agencies and individuals regarding agricultural and urban water and energy conservation, reclamation and reuse of water, land and water use, and drainage management," "[c]arries out data analysis, demonstration projects, and research to achieve energy and water use efficiency," and "[p]rovides loans and grants to make more efficient use of water and energy resources" (DWR, 2014d).</p> <p>The BDCP proponents have a profound influence over local water use. For example, the various water conservation initiatives listed on Metropolitan Water District's webpage include an On-Site Retrofit Pilot Program, which provides incentives for conversion of potable water irrigation or industrial systems to use recycled water for public or private property owners; an Innovative Conservation Program, which researches new water saving devices, technologies, and strategies; a Water Savings Incentive Program, which is a collaborative effort with its 26 public member agencies and large-volume water customers to improve water use efficiency; a Landscape Irrigation Survey Program, which is designed to improve irrigation efficiency for commercial, industrial, institutional and common area landscapes with at least one acre of irrigated land; a Community Partnering Program, which sponsors water conservation and water-use efficiency programs and measures for community-based organizations including nonprofit groups, professional associations, educational institutions and public agencies; and the Southern California World Water Forum, which awards grants for the research and development of water-use efficiency technology, policy research and communication strategies that can be cost-effectively implemented in Southern California (Metropolitan Water District of Southern California, 2014a; Metropolitan Water District of Southern California, 2014b).</p> <p>The claim that water conservation is beyond the control of the BDCP project proponents is a red herring. And even if DWR and the BDCP proponents lacked influence or control over local water conservation efforts, that would not be an excuse for failing to evaluate the Portfolio alternative. See 40 C.F.R. [Section] 1502.14(c) (alternatives analysis must include "reasonable alternatives not within the jurisdiction of the lead agency"); CEQA Guidelines [Section] 15126.6(f)(1) (no single factor, such as regulatory limitations or jurisdictional boundaries, establishes a fixed limit on the scope of the alternatives analysis, which must be sufficient to foster meaningful public participation and informed decision-making).</p> | <p>The EIR/EIS recognizes that individual water agencies have influence and in many instances requirements for water use efficiency actions that can range from water conservation to water recycling. The water use efficiency actions are not part of the Project Objectives and Purpose and Need of the BDCP/California WaterFix, as described in Chapter 2 of the EIR/EIS.</p> <p>Please see Section 1.C.3 of Appendix 1C, Demand Management Measures. Please see Master Response 37 regarding storage. Please see Master Response Master Response 4 for information on the development of alternatives.</p> |
| 1563 | 181 | As with water conservation, the BDCP Draft EIR/EIS claims that increased south of Delta storage is beyond the scope of the proposed project. BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81. DWR "agrees" that such new storage should be part of a water supply program for California, but the BDCP Draft EIR/EIS asserts that this "cannot transform the BDCP from an incidental take permit focused on the Delta into a water plan for all users of Delta water." Id. The narrow focus on incidental take coverage ignores the fact that Conservation Measure 1 would constitute a massive water conveyance system that would | Please see Section 1.C.3 of Appendix 1C, Demand Management Measures. Please see Master Response 37 regarding storage. Please see Master Response Master Response 4 for information on the development of alternatives. |

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| | | provide supplies to users of Delta water. The new water conveyance and supply system would have numerous significant environmental impacts; the BDCP Draft EIR/EIS accordingly must evaluate alternatives to the construction and operation of the proposed system that would reduce these impacts, including the option of building smaller conveyance facilities in connection with increased storage. The BDCP Draft EIR/EIS cannot dismiss such an alternative merely because DWR does not want to evaluate storage options at this time, or as part of this approach. This approach improperly constrains the evaluation of alternatives, in addition to improperly segmenting the environmental analysis. The end result is that the BDCP Draft EIR/EIS fails to provide a clear picture to the public and the decision-makers of the relevant trade-offs of the Portfolio alternative or similar approach, as compared to the proposed project. | |
| 1563 | 182 | The BDCP Draft EIR/EIS repeats its mantra in stating that reinforcing Delta levees is "also outside the scope of the BDCP." BDCP Draft EIR/EIS, Appendix 3A at p. 3A-81. But according to one of the stated project objectives, the BDCP seeks to "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." Id., Chap. 2 at p. 2-3. This objective matches one of the key components of the Portfolio alternative, which is to "[i]mprove Delta levees to reduce vulnerability of Delta water supplies to earthquakes, sea level rise, and climate change impacts." Id., Appendix 3A at p. 3A-81. Again, the BDCP Draft EIR/EIS has artificially constrained the scope of the alternatives analysis to exclude the Portfolio alternative. | <p>Please see Appendix 6A of the Final EIR/EIS for the Project purpose and need, and for a discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the Project.</p> <p>As described in Chapter 2, Final EIR/EIS, the project objectives and purpose and need were used by the lead agencies to develop a reasonable range of alternatives to evaluate in the EIR/EIS. One of the alternatives, Alternative 9, would include levee improvements and strengthening on the through-Delta water conveyance corridor. Alternative 9 would shore up levees at risk of failure following a major earthquake.</p> <p>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS).. The portfolio package includes additional water recycling, water storage located south of the Delta, and Delta levee modifications. Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> |
| 1563 | 183 | The project proponents have direct control over their agencies' investments in alternatives capable of achieving the BDCP's objectives, and could have defined an alternative that included reduced reliance on the Delta. Even though there may be uncertainty over the details of such an option, considerable uncertainty similarly surrounds many components of the BDCP, such as the ill-defined habitat restoration actions -- in particular, how much acreage actually would be restored; how the restoration actions would be configured, sequenced, and designed; how effective the restoration actions would be; and how the restoration actions would be sufficiently funded. | This comment addresses Alternative 4 (known also as the BDCP) presented in the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) has been evaluated in addition to Alternatives 2D and 5A in the RDEIR/SDEIS and the Final EIR/EIS. For detailed responses on the primary issues being raised with regard to the BDCP, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. |
| 1563 | 184 | It is specious to dismiss the Portfolio alternative as beyond the purview of the project. One of the purposes of the alternatives analysis is to provide decision-makers and the public with the information necessary to evaluate the trade-offs inherent in large capital improvement projects. In this case, the evaluation is curtailed and incomplete. Alternatives that include reducing reliance on the Delta and instead meeting the project objectives through smaller conveyance facilities and increased storage should be developed and fully evaluated. Given the large number of significant unavoidable impacts caused by the proposed project, it is irresponsible from a public policy perspective, and contrary to the requirements of CEQA and NEPA, to refuse even to consider alternatives that reduce reliance on the Delta and lessen the impacts to this vital resource. | <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>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> |

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| | | | <p>more information regarding significant and unavoidable impacts please see Master Response 10.</p> <p>Please see Master Response 37 discussing additional storage.</p> |
| 1563 | 185 | <p>Another alternative that should be explored is a thorough examination of how "reoperation" of existing reservoirs upstream of the Delta could realize additional yields that could be used to enhance water supply reliability while reducing the negative environmental impacts resulting from the BDCP as it is currently proposed. The BDCP recognizes that the reoperation of upstream reservoirs could create additional yield (BDCP, Chap. 3 at p. 3.4-356), but there is no analysis of how this reoperation could impact water quality (Section 2.2.1 of these comments) and there is equally no discussion of alternative approaches for changing operations of upstream reservoirs, in combination with a smaller conveyance facility than what is included in DWR's Preferred Alternative (Alternative 4), to achieve water supply benefits while also reducing water quality impacts. The BDCP Draft EIR/EIS needs to include such an alternative to provide sufficient information to the public and the decision-makers.</p> | <p>All of the action alternatives assumed the same operational criteria as under Existing Conditions and No Action Alternative for the upstream reservoirs. Changing upstream reservoir operational criteria was not consistent with the project objectives and purpose and need to not change water supplies of non-Project water users (see Chapter 2 of the EIR/EIS). Changes in upstream reservoir operational criteria also would involve coordination with the USACE and other flood management agencies, Western Area Power Administration related to hydropower generation, fish and wildlife habitat, and recreational activities. Changes to all of these beneficial uses of the upstream reservoirs are not consistent with the project objectives and purpose and need of this Project. Please see Master Response 25 regarding upstream reservoir effects.</p> |
| 1563 | 186 | <p>The alternatives that have been evaluated fail to avoid or substantially lessen most of the significant effects of the proposed project.</p> <p>CEQA requires lead agencies to evaluate a reasonable range of alternatives that avoid or substantially lessen significant effects of the proposed project. Alternative 4, the DWR Preferred Alternative, results in 52 significant unavoidable impacts. BDCP Draft EIR/EIS, Table ES-9. Of these, for only nine impacts do any of the studied alternatives avoid or substantially lessen the significant effects and five of the nine are related to the fact that Alternative 9 does not include construction of new conveyance facilities. In critical resource areas like water quality, none of the alternatives evaluated substantially lessen the six significant unavoidable impacts of Alternative 4. The alternatives therefore do not function as CEQA intended -- they do not avoid or substantially lessen the project's significant effects. In most cases, the impact conclusions are the same for all of the alternatives. This makes it difficult to discern the relative merits and detriments of the alternatives, and does not aid in the decision-making process.</p> <p>The analysis needs to be revised to include alternatives that 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." CEQA Guidelines [Section] 15126.6(b). A fair analysis of the Portfolio alternative, for example, or of another alternative that reduces reliance on the Delta for water supplies in the export areas, may reveal an option that would substantially lessen project impacts while still providing ecosystem improvements and enhancing water supply reliability.</p> | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions. 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. Please refer also to Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>Please see Master Response 4 related to Alternatives Analysis and Master Response 3 related to Project Objectives and Purpose and Need.</p> |
| 1563 | 187 | <p>The BDCP Draft EIR/EIS fails to evaluate alternatives to habitat restoration conservation measures.</p> <p>The BDCP Draft EIR/EIS also violates CEQA and NEPA by failing to examine alternative approaches for habitat restoration. For all of the alternatives, it is assumed that the wide range of habitat restoration actions (CM2 through CM11) that are proposed as part of the BDCP would be implemented; the only variations are in the quantity of specific habitat types to be restored under some of the alternatives. BDCP Draft EIR/EIS, Chap. 3 at pp.</p> | <p>Please see Master Response 4 for a discussion of the alternatives development process in the EIR/EIS and its adequacy. The 2013 public draft BDCP includes an alternative to take that incorporates 25,000 acres of tidal wetland restoration instead of the 65,000 acres of restoration proposed in BDCP. The habitat restoration alternative reduced the level of take for some covered species, but also substantially reduced the benefits of restoration to many of the covered species. Such an alternative was not considered in the EIR/EIS because it would not meet the purpose and need of the project to restore the Delta ecosystem and substantially contribute to the recovery of the covered species.</p> |

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| | | <p>3-39 ("[t]arget acreages would vary for some alternatives"); 3-121 (reduced acreage of restoration of tidal natural communities under Alternative 5); 3-137 (increased acreage of restoration of seasonally inundated floodplain habitat under Alternative 7). But there are no alternatives modifying the manner in which the habitat restoration actions would be implemented; nor is there an explanation of why such alternatives are not possible. This is a significant omission, given that the BDCP Draft EIR/EIS recognizes that habitat restoration actions would cause a number of significant unavoidable impacts. See, e.g., Impacts GW-6; WQ-14, WQ-18, WQ-22; AG-3, AG-4.</p> <p>For example, an alternative could have been explored that would implement tidal natural communities habitat restoration actions under CM4 in a way that would avoid or minimize the significant salinity impacts these actions could cause. This could be accomplished by establishing parameters for the timing, sequence and design of individual habitat restoration actions under CM4 to control the overall salinity effects.</p> <p>Instead of evaluating such an option to reduce significant, identified environmental impacts, the BDCP Draft EIR/EIS defers this type of alternatives analysis to a later date, based on the claim that the current analysis of the habitat conservation measures is only programmatic. However, the fact that CM2 through 11 are examined at a program level does not obviate the requirement to examine alternatives. To the contrary, a program-level analysis is supposed to provide an opportunity for a more thorough consideration of program-wide alternatives at an earlier stage than might be the case in a project-level review. See CEQA Guidelines [Section] 15168(b)(1), (4).</p> <p>Moreover, this is not merely a small component of the BDCP. The ten Conservation Measures at issue (CM2 through CM11) are nearly half of the components of the BDCP (CM1 through CM22) and reflect a major part of the strategy for the proposed project. The BDCP Draft EIR/EIS should not have limited the alternatives to different configurations and operational scenarios of only one project component -- CM1; alternatives should have been presented that address the entirety of the BDCP and the full range of the project's significant impacts, including impacts caused by habitat restoration.</p> <p>Alternatives could have been evaluated to vary how the habitat restoration actions are implemented (including the location, design and type of habitat restored) or to examine other types of recovery measures, including modifying the balance between restoration and the efforts to address other stressors. Without even a consideration of alternative approaches to habitat restoration, the BDCP Draft EIR/EIS fails to provide sufficient information to foster meaningful public participation and informed decision-making.</p> | <p>Please also see Master Response 2 for a discussion of the project vs. program level analysis in the BDCP and BDCP EIR/EIS and why this is adequate and allowed under CEQA and NEPA.</p> <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> |
| 1563 | 188 | <p>The BDCP Draft EIR/EIS fails to present an adequate comparative analysis of the alternatives.</p> <p>The BDCP Draft EIR/EIS evaluates 15 different conveyance facility configurations. But it is nearly impossible to compare the relative impacts of the configurations, since the configurations are assigned different operating scenarios. The reader cannot tell whether it is the change in conveyance facility configuration or the change in operating scenario that is causing the difference in impacts. BDCP Draft EIR/EIS, Chap. 3 at pp. 3-14 to 3-16. For example:</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives 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 2013 Draft EIR/EIS. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>It should be noted that this comment addresses the 15 action alternatives which represented nine different operational scenarios in the analysis contained within the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration</p> |

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| | | <p>* The facility configurations represented by Alternatives 1A, 1B and 1C are assigned Operating Scenario A.</p> <p>* The facility configurations represented by Alternatives 2A, 2B, and 2C are assigned Operating Scenario B.</p> <p>* The facility configuration represented by Alternative 4 (the proposed project) is assigned Operating Scenario H.</p> <p>* The facility configuration represented by Alternative 5 is assigned Operating Scenario C.</p> <p>* The facility configurations represented by Alternatives 6A, 6B, and 6C are assigned Operating Scenario D.</p> <p>* The facility configuration represented by Alternative 7 is assigned Operating Scenario E.</p> <p>* The facility configuration represented by Alternative 8 is assigned Operating Scenario F.</p> <p>To make a straightforward comparison with the DWR Preferred Alternative (Alternative 4), one would need to apply Operational Scenario H to the other alternatives. That would reveal how a change to the physical configuration of the project would or would not reduce impacts. But none of the other alternatives is paired with this operational scenario and instead different operational scenarios are used. Similarly, to reveal how an operational change to the project would or would not reduce impacts, each of the operational changes should have been applied to Alternative 4. That approach would have isolated the effects of the operational changes. Instead, different operational changes were applied to different physical configurations of CM1. This unsystematic, mix-and-match approach obfuscates the comparison and makes it very hard to tell what particular mechanism (conveyance facility or operational scenario) is causing the impacts that are identified.</p> <p>The BDCP Draft EIR/EIS claims it is using a "bookend" approach to create a continuum of impacts, under which the impacts of any combination of conveyance facility configuration and operational scenario would fall within the bookends. The document states: "Although the EIR/EIS only applies this scenario [H] to Alternative 4 (the CEQA Preferred Alternative), Scenario H could be implemented with any other project alternative in order to create a hybrid alternative within the bookends created by the entire range of alternatives addressed in the EIR/EIS." BDCP Draft EIR/EIS, Chap. 3 at p. 3-202. But this approach does not reveal how the impacts of the alternatives would change if a different operating scenario were applied to them. It is not a comparative approach that identifies the relative trade-offs of the alternatives as against the proposed project. This is insufficient. See CEQA Guidelines [Section] 15126.6(d) (EIR must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project") (emphasis added); 40 C.F.R. [Section] 1502.14 (EIS "should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public") (emphasis added).</p> <p>It is inadequate simply to say that the impacts of the alternatives all fall within the "bookends." Especially for a project of this magnitude, which would affect millions of</p> | <p>acres included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A include additional operational assumptions, as presented in the RDEIR/SDEIS and the Final EIR/EIS.</p> |

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| | | <p>Californians for generations, more information is needed about the relative impacts of the different alternatives to provide a basis for meaningful choice and informed decision-making. It is critical to understand how the alternative physical configurations would affect the impact analysis, and how the alternative operational scenarios would affect the impact analysis. Only then could a decision-maker make an informed choice among the options.</p> <p>Equally important, the unique application of Operational Scenario H to DWR's Preferred Alternative (Alternative 4) results in a biased analysis, since this operational scenario has been improved and refined to address potential impacts to fisheries. DWR has therefore put its thumb on the scale in purporting to present a fair measurement of the impacts of the alternatives in comparison with the BDCP as proposed. While the BDCP Draft EIR/EIS indicates that Operational Scenario H could be implemented in combination with the other alternatives, this type of assessment is not presented, so there is no way of actually making the relevant comparison.</p> <p>In sum, the evaluation of alternatives in the BDCP Draft EIR/EIS is flawed in a variety of key respects and substantial revisions are required to present an analysis that complies with CEQA and NEPA.</p> | |
| 1563 | 189 | <p>The Department of Water Resources is the wrong lead agency for the BDCP under CEQA. CEQA defines "lead agency" as "the public agency which has the principal responsibility for carrying out or approving a project." Cal. Pub. Res. Code [Section] 21067. Where several agencies have a role in approving, implementing or realizing a project, CEQA "plainly requires the public agency with principal responsibility to assume the role as lead agency." Planning & Conservation League v. Department of Water Resources, 83 Cal. App. 4th 892, 906 (2000).</p> <p>The selection of the proper lead agency is not merely an academic exercise. Rather, the lead agency plays a "crucial role" in the EIR process, as it "must independently participate, review, analyze and discuss the alternatives in good faith." Planning & Conservation League v. Department of Water Resources, 83 Cal. App. 4th at 903-04 (court's emphasis). Thus, "the lead agency plays a pivotal role in defining the scope of environmental review, lending its expertise in areas within its particular domain, and in ultimately recommending the most environmentally sound alternative." Id. at 904. "So significant is the role of the lead agency that CEQA proscribes delegation." Id. at 907.</p> <p>The proposed BDCP is intended to serve as a Natural Community Conservation Plan (NCCP) pursuant to the Natural Community Conservation Planning Act (NCCPA). BDCP Draft EIR, Exec. Summary at p. ES-1 and p. ES-13 ("the BDCP is a joint HCP/NCCP intended to address ESA and NCCPA compliance"). But under the NCCPA, the authority for approving a NCCP rests with the California Department of Fish & Wildlife (CDFW), not DWR. See Cal. Fish & Game Code [Section] 2820(a) (CDFW approves an NCCP for implementation after making specified findings based on substantial evidence in that agency's administrative record); see also id. [Section] 2821 (concurrent with its approval of an NCCP, CDFW must establish a list of species authorized for take and make findings regarding the coverage of species and the mitigation of impacts under the NCCP). In contrast to the approval authority of the CDFW over an NCCP, DWR, the agency that has assumed the role of CEQA lead agency for the BDCP Draft EIR/EIS, does not have the</p> | <p>The EIR/EIS analyzes all action alternatives, including Alternatives 2D, 4A, and 5A that do not include Conservation Measures 1 through 22 or adoption of an HCP or NCCP. Please see Master Response 5 related to status of the BDCP.</p> <p>DWR's actions in the process will be to certify the EIR, adopt findings of fact, decide whether to approve the project and its implementation, and carry out obligations under the proposed project. CDFW will consider whether to approve the proposed project under CESA and issue permits under Section 2081 of the California Fish and Game Code. USFWS and NMFS will make a decision regarding the issuance of a permit for the incidental take of federally listed species under ESA Section 7. For more information regarding alternatives analysis please see Master Response 4.</p> |

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| | | <p>power to approve an NCCP. DWR's role in this project instead is focused on the operation of the SWP and the water conveyance facilities that are only one of the BDCP's 22 Conservation Measures, CM1. As explained in the section of the BDCP Draft EIR/EIS addressing agency roles and responsibilities, "DWR has the responsibility to operate and maintain the [State Water Project] and would be involved in all aspects of CM1 related to the SWP, as well as any discretionary actions related to coordination with Reclamation or its contractors." BDCP Draft EIR/EIS, Chap. 1 at p. 1-15; Draft Implementing Agreement (dated May 28, 2014) at p. 1 (DWR is responsible for operating and maintaining SWP facilities). As for the 21 other Conservation Measures (CM 2 through 22) that make up the proposed NCCP, the BDCP Draft EIR/EIS indicates that DWR -- rather than exercising adoption or approval authority -- will submit the proposal to the California Department of Fish & Wildlife for its approval under the provisions of the California Fish & Game Code that govern NCCPs. BDCP Draft EIR/EIS, Chap. 1 at pp. 1-12, 1-15.</p> <p>Thus, this is not a situation where an association or consortium of local governmental bodies, who are directly responsible for exercising their land use authorities to implement the provisions of an NCCP, assumes lead agency status under CEQA for the plan's preparation. Here, DWR's jurisdiction and authority is limited to the approval and implementation of CM1 and the operations of the SWP.</p> <p>DWR is simply not the proper lead agency for the BDCP Draft EIR/EIS. It does not have principal responsibility for 95 percent of the Conservation Measures that make up the NCCP that is being proposed. Instead, the proper lead agency is the CDFW. It is not only the agency with principal responsibility for approving the NCCP, it also is in the best position to conduct a fair and independent evaluation of the detriments and benefits posed by all of the proposed conservation measures, given its statutory mission and its unique and extensive expertise in matters of ecological conservation. See <i>Planning & Conservation League v. Department of Water Resources</i>, 83 Cal. App. 4th at 903-04.</p> <p>This fundamental error is far from harmless. It taints virtually every aspect of the BDCP Draft EIR/EIS, including the lack of adequate detail in the project description, the imbalanced evaluation of alternatives, the use of an improper environmental baseline, the erroneous identification and assessment of significant water quality and water supply impacts, and the plainly insufficient mitigation for those impacts. The selection of the wrong lead agency renders the BDCP Draft EIR/EIS fatally flawed and legally indefensible.</p> | |
| 1563 | 190 | <p>Descriptions of Contra Costa Water District (CCWD) facilities, operations, and permits are inaccurate.</p> <p>Throughout the BDCP Draft EIR/EIS, CCWD's facilities, operations, and permits are inaccurately, incompletely, and inconsistently described. The BDCP Draft EIR/EIS must be corrected to accurately and consistently characterize CCWD's facilities, operations, and permits. It also must clarify that CCWD is not a Delta exporter and that CCWD's operations are not part of the proposed BDCP. Additionally, the BDCP Draft EIR/EIS inappropriately omits certain existing CCWD facilities and mis-characterizes CCWD operations in the environmental baseline.</p> <p>It is important to accurately characterize and model existing CCWD facilities, operations, and permits.</p> | The text in Chapter 5 of the EIR/EIS has been modified to reflect information presented in this comment. |

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| | | <p>Descriptions of CCWD's facilities and operations vary throughout the BDCP Draft EIR/EIS. Some of the descriptions are incomplete or not up to date, and some contain inaccurate information. To avoid confusion, these descriptions should be corrected. The following description provides accurate, up-to-date information and should be the basis for all descriptions of CCWD in the BDCP Draft EIR/EIS.</p> <p>Contra Costa Water District (CCWD) diverts water from the Delta under its CVP contract and under its own water rights. Under its CVP contract, CCWD can divert water at Rock Slough for direct use in its service area (as well as storage in Contra Loma Reservoir) and divert water at its intake on Old River near State Route 4 (CCWD's Old River intake) and its intake on Victoria Canal near Middle River (CCWD's Middle River intake) for either direct use or for storage in Los Vaqueros Reservoir. Under its own State Water Board permit and license, CCWD can divert water for direct use at Mallard Slough. Under its own State Water Board permit, CCWD can divert water at its Old River and Middle River intakes to storage in Los Vaqueros Reservoir for municipal, industrial, domestic, irrigation, recreation, incidental fish and wildlife preservation and/or enhancement, and water quality purposes.</p> <p>CCWD's water system includes intake facilities at Mallard Slough, Rock Slough, Old River, and Victoria Canal near Middle River (Middle River intake); the Contra Costa Canal and shortcut pipeline; Contra Loma Reservoir; the Martinez Terminal Reservoir; and the Los Vaqueros Reservoir. The Rock Slough intake facilities, the Contra Costa Canal, the Shortcut Pipeline, the Contra Loma Reservoir, and the Martinez Terminal Reservoir are owned by Reclamation, and operated and maintained by CCWD under contract with Reclamation. Mallard Slough intake, Old River intake, Middle River intake, and Los Vaqueros Reservoir are owned and operated by CCWD and are not part of the CVP.</p> <p>All CCWD intakes are equipped with state of the art fish screens. The Contra Costa Canal Fish Screen was completed and formally dedicated in September 2011. The Contra Costa Canal Fish Screen (also known as the Rock Slough Fish Screen) was constructed and is owned by Reclamation and is operated by CCWD.</p> <p>The Los Vaqueros Reservoir is a 160 thousand acre-foot off-stream reservoir solely owned and operated by CCWD. The Los Vaqueros Reservoir provides water quality and drought and emergency water supply reliability benefits to CCWD, as well as opportunities for regional water supply reliability partnerships. Originally built at 100 thousand acre-feet, the reservoir was expanded to its current capacity in 2012. Reclamation and CCWD are currently conducting a feasibility study for the possible further expansion of Los Vaqueros Reservoir for the benefit of regional partners.</p> <p>CCWD's operations are governed by Biological Opinions issued to Reclamation under Section 7 consultations separate from the Biological Opinions for the Operations Criteria and Plan (OCAP) of the CVP and SWP (hereafter, "CCWD-specific Bos") (National Marine Fisheries Service (NMFS), 1993; U.S. Fish and Wildlife Service (USFWS), 1993; USFWS, 2000; USFWS, 2005). CCWD's operations are included in the project description and modeling for the long-term CVP/SWP operations Biological Assessment, which resulted in the current Biological Opinions on CVP/SWP operations (USFWS 2008; NMFS 2009). CCWD also has California Endangered Species Act take authorization for all its operations under an Incidental Take Permit issued in 2009 by the California Department of Fish and</p> | |

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| | | <p>Game (California Department of Fish and Game, 2009).</p> <p>As a CVP contractor, CCWD's operations described above would be included in the BDCP ESA Section 7 Biological Assessment as part of the existing operations. CCWD is not an ESA Section 10 permit applicant under the BDCP.</p> <p>CCWD is a CVP contractor and an in-Delta diverter. CCWD is not an exporter of water from the Delta, is not in the CVP or SWP export service area, and does not receive water from the export facilities. CCWD's territory lies within the legal boundary of the Delta or is immediately adjacent thereto and conveniently served with water therefrom.</p> | |
| 1563 | 191 | <p>The description of Contra Costa Water District's diversion facilities in section 5.1.2.6 of the BDCP Draft EIR/EIS is consistent with the description above. However, CCWD's facilities are inconsistently and incorrectly described in many other places in the BDCP Draft EIR/EIS. CCWD requests that all such flawed descriptions be corrected. Failing to accurately describe CCWD facilities and operations can lead to misinterpretation or misrepresentation of the results of the impact analysis. For example, the text in the BDCP Draft EIR/EIS on page 25-137, lines 39-43 appears to limit the discussion of mitigating for DOC impacts at CCWD Delta intakes to Rock Slough; however, impacts at all CCWD Delta intakes should be mitigated.</p> <p>An additional example of the importance of accurately describing CCWD's facilities and operations results from the mischaracterization of CCWD as being within the CVP export service area. (e.g. BDCP Draft EIR/EIS, Executive Summary, Figure ES-1; BDCP Draft EIR/EIS, Chap. 1, Figures 1-3 and 1-4; BDCP Draft EIR/EIS, Chap. 3 at p. 3-116; BDCP Draft EIR/EIS, Chap. 5 at p. 5-25 and Figure 5-2; and BDCP, Chap. 35 at p. 35-9) As a CVP contractor, CCWD is in the CVP service area, but CCWD is not in the export service area. CCWD is an in-Delta diverter. CCWD is not in the area served by the CVP or SWP export facilities, and CCWD does not receive water from the export facilities. Chapter 8 of the BDCP Draft EIR/EIS assesses water quality impacts by region; impacts to CCWD's water quality cannot have been accurately assessed if CCWD was assumed to be in the export service area. If the analysis did correctly assess CCWD as not being within the export service area, then the text should be modified to reflect this fact and avoid confusion. If, on the other hand, the impact assessment incorrectly assumed that CCWD is within the export service area, then the assessment needs to be redone.</p> <p>Similarly, Figure 6-4 of the BDCP Draft EIR/EIS incorrectly labels CCWD's Mallard Slough, Rock Slough, and Old River intakes as "Export Facilities" rather than Delta diversion locations (and CCWD's Middle River intake is missing entirely from the figure). Also, in the glossary of the BDCP Draft EIR/EIS, Contra Costa Canal is incorrectly included in the list of facilities through which water is exported from the Delta. CCWD's diversions to the Contra Costa Canal from the Delta are not Delta exports. CCWD's Delta diversions should not be included in any calculations of total Delta exports presented in the BDCP Draft EIR/EIS (for instance, in the water supply analysis in Chapter 5). If the export calculations correctly excluded CCWD diversions, then the text should be modified to reflect that and to avoid confusion; if not, then the calculations need to be redone.</p> <p>The following list provides other examples of the flawed descriptions of CCWD facilities and operations in the BDCP Draft EIR/EIS, and provides guidance on correcting the errors.</p> | <p>The inclusion of Contra Costa Water District in the export area is based upon the definition of Net Delta Outflow Index in the SWRCB Decision 1641. On Figure 6-4, the designation of Export Facility was used to differentiate from the SWP and CVP intakes (which are also export facilities, as defined in the text). The intake on Middle River was not included because the intake was not completed as of the publication of the Notice of Preparation and Notice of Intent; and therefore, was not included in the Existing Conditions. The term "urban intake" is used as an indication of "municipal and industrial water use (as compared to primarily agricultural water uses). Although the water diverted from rivers and the Delta cannot be used for potable water supplies without water treatment processes, the term "potable water" also is used as an indication of "municipal and industrial water use (as compared to primarily agricultural water uses). In the tables that listed the projects included in the No Action Alternative, Reclamation was included in the table because the environmental document was jointly prepared by Contra Costa Water District and Reclamation.</p> |

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| | | <p>* "Contra Costa Diversion Facilities" are not owned and maintained by the CVP as indicated on page 3-181, lines 5-8. Only CCWD's diversion facility at Rock Slough is owned by the CVP, but it is operated and maintained by CCWD. CCWD's other diversion facilities (Old River, Middle River and Mallard Slough) are all owned, operated, and maintained by CCWD and are not part of the CVP.</p> <p>* On page 8-12, lines 16-18, the BDCP Draft EIR/EIS states, "CVP's Contra Costa Canal conveys Delta water from Rock Slough. CCWD's Los Vaqueros Pipeline diverts water from Old River to the west to meet potable demands of Bay Area users served by CCWD." This description is incomplete and inaccurate. CCWD diverts Delta water from the Rock Slough, Old River, Middle River, and Mallard Slough intakes, and operates and maintains CVP's Contra Costa Canal to convey this Delta water, arriving from all its intakes and from Los Vaqueros Reservoir, to its service area. CCWD also diverts water into the Los Vaqueros Pipeline, which connects to the Contra Costa Canal, using its Old and Middle River intakes. Finally, CCWD diverts water to storage in Los Vaqueros Reservoir from both its Old and Middle River intakes.</p> <p>* CCWD's Alternative Intake Project, which built the Middle River intake on Victoria Canal, was completed in 2010 and provides improved water quality and operational flexibility for CCWD. The Alternative Intake Project (now referred to as the Middle River intake) is described incorrectly in numerous places throughout the BDCP Draft EIR/EIS:</p> <ul style="list-style-type: none"> - In multiple places, the BDCP Draft EIR/EIS lists a CCWD Alternative Intake and 55 thousand acre-feet/year increased demand as a "new urban intake" to be added to Existing Conditions to simulate the No-Action Alternative. This is incorrect. The Alternative Intake Project did not respond to or cause increased CCWD service area demand and did not increase CCWD's Delta diversions. - Descriptions of the Alternative Intake Project as including a "potable water intake" should be corrected to read "drinking water intake," since water diverted from the Delta is not potable until it is treated. - In multiple places in the BDCP Draft EIR/EIS, CCWD, Reclamation, and DWR are all listed as primary agencies for the Middle River intake (previously known as the Alternative Intake Project). Reclamation and CCWD jointly prepared the EIR/EIS for the Alternative Intake Project, but CCWD permitted, constructed and solely owns and operates the Middle River intake. <p>* The Los Vaqueros Reservoir Expansion Project is subject to wildly varying statements regarding its timeline and status. In 2010 CCWD and Reclamation completed the Final EIS/EIR for the Los Vaqueros Reservoir Expansion Project, which included alternatives for expanding the reservoir to 275 thousand acre-feet and to 160 thousand acre-feet. CCWD completed construction to expand CCWD's Los Vaqueros Reservoir to 160 thousand acre-feet in 2012. Specific corrections to the BDCP Draft EIR/EIS that are required include:</p> <ul style="list-style-type: none"> - The description of the Los Vaqueros Reservoir Expansion in Table 11-14 on page 11-3016 incorrectly states that CCWD diverts water from "near Rock Slough" to fill Los Vaqueros Reservoir. CCWD diverts water to storage in Los Vaqueros Reservoir from its Old River intake or Middle River intake, not from its Rock Slough intake. | |

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| | | <p>- Reclamation and the Department of Water Resources are listed in the BDCP Draft EIR/EIS with CCWD as primary agencies for the Los Vaqueros Reservoir Expansion Project. Reclamation was the NEPA lead agency on the Los Vaqueros Reservoir Expansion Project EIS/EIR, and CCWD was the CEQA lead agency. However, the expansion project was built by CCWD alone, and CCWD solely owns and operates Los Vaqueros Reservoir.</p> <p>* In the BDCP Draft EIR/EIS, CVP facilities operated by CCWD are incorrectly grouped with CVP and SWP export facilities. Unspecified "portions of the CCWD Diversions Facilities" are erroneously listed in Section 3.6.1.9 on page 3-116 with SWP and CVP south Delta export facilities. CCWD is a CVP contractor and diverts water to serve its customers from its Delta intakes under its CVP contract and its own water rights. The Rock Slough intake, Rock Slough Fish Screen, Contra Costa Canal, Martinez Reservoir and Contra Loma Reservoir are owned by the CVP, but these facilities are not part of CVP south Delta export facilities. CCWD operates and maintains these facilities. The CVP does not operate these or any other of CCWD's facilities, and modifications to CCWD operations are not part of the BDCP (as correctly noted on page 3-116 of the BDCP Draft EIR/EIS). A description of CCWD diversions of CVP water and CCWD use of the Rock Slough Pumping Plants and Contra Costa Canal is incorrectly included on page 21-5 of Section 21.1.1.4, which is titled "CVP Delta-Mendota Canal Facilities." CCWD does not receive water from the Jones Pumping Plant or the Delta-Mendota Canal facilities. The Contra Costa Canal, Rock Slough Pumping Plants, and Rock Slough Fish Screen are independent of CVP's Delta-Mendota Canal facilities and should be described in their own separate section. CCWD should not be shown to receive water from the CVP and SWP export facilities in either the existing condition baseline or under any of the BDCP project alternative scenarios presented in the BDCP Draft EIR/EIS.</p> | |
| 1563 | 192 | <p>Contra Costa Water District has separate endangered species act and California endangered species act permits governing its operations.</p> <p>CCWD is not an Endangered Species Act Section 10 permit applicant under the BDCP. CCWD diverts water under its CVP contract and its own water rights from intakes at Rock Slough, Mallard Slough, Old River, and Victoria Canal near Middle River. CCWD owns, operates, and maintains all of these facilities except for the Rock Slough intake, which is owned by the Bureau of Reclamation but operated and maintained by CCWD. As the BDCP Draft EIR/EIS accurately states in Chapter 5 on page 5-27, CCWD operations are governed by a separate set of existing Biological Opinions and an incidental take permit, including the March 18, 1993 National Marine Fisheries Service Biological Opinion on the Los Vaqueros Project (NMFS, 1993); the September 9, 1993 U.S. Fish and Wildlife Service (USFWS) Biological Opinion on the Los Vaqueros Project, (USFWS, 1993); the April 27, 2000 USFWS Biological Opinion on CCWD construction of a Multipurpose Pipeline and Future Water Supply Implementation Program (USFWS, 2000); the March 11, 2005 USFWS Biological Opinion on the Renewal of CCWD's Central Valley Project Water Service Contract (USFWS, 2005); and the 2009 California Department of Fish and Game Incidental Take Permit (ITP) for the Maintenance and Operation of the Los Vaqueros Project and Alternative Intake Project (California Department of Fish and Game, 2009). The BDCP Draft EIR/EIS states on page 3-181 that maintenance of "Contra Costa Diversion Facilities" will be covered in the BDCP ESA Section 7 consultation, but maintenance of CCWD's facilities is covered under the Biological Opinions listed above and should not be included in the BDCP ESA Section 7 consultation. If, as a result of the BDCP ESA Section 7</p> | <p>Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>The action alternatives, No Action Alternative, and Existing Conditions do not include maintenance of CCWD facilities or include CCWD facilities in application for ESA or CESA authorization of the Proposed Project.</p> |

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| | | consultation, any of the criteria for reinitiation of consultation set forth in CCWD-specific Biological Opinions are triggered, Reclamation and CCWD will reinitiate consultation under ESA Section 7. | |
| 1563 | 193 | <p>Contra Costa Water District (CCWD) facilities and operations are not accurately reflected in the BDCP environmental baseline scenarios.</p> <p>The BDCP Draft EIR/EIS fails to include important components of CCWD's existing facilities and operations in the environmental baseline under CEQA. Section 2.1 of these comments discusses the invalid baseline used in the BDCP Draft EIR/EIS in additional detail. The construction of the Middle River intake, the expansion of Los Vaqueros Reservoir to 160 thousand acre-feet, and the completion of the Rock Slough Fish Screen all occurred by 2012. These facilities have improved CCWD's operational flexibility and are now integral to CCWD operations. Excluding these facilities and the associated operations enabled by them from the environmental baseline conditions results in an invalid impacts analysis, because the BDCP Draft EIR/EIS is using a base case scenario that no longer exists. CCWD's current, existing operations are simulated in a module that was developed by CCWD and has been integrated into the version of the CalSim II water operations model that was used by the BDCP team of modelers. Including these facilities in the environmental baseline conditions is a simple matter of specifying the correct numbers for storage in Los Vaqueros Reservoir and pumping capacity at the Middle River intake in the already extant CalSim II model code. Adjusting these two numbers to reflect the correct existing conditions for CCWD operations could have been done at any point between the many iterations of model runs that the BDCP modeling team produced. Incorporating CCWD's existing facilities in the CEQA baseline is needed to allow a more accurate assessment of BDCP project impacts on CCWD's water quality and water supply operations. The failure to do so is inexplicable and results in a flawed baseline and thus a flawed impact analysis. These known uncorrected errors in the models must be corrected, and the environmental analysis must be redone. When it is redone, CCWD's facilities must be accurately included in the models as they currently exist.</p> | <p>The Existing Conditions assumptions were developed in accordance with conditions in 2009 at the time of the publication of the Notice of Preparation and Notice of Intent, in accordance with CEQA and NEPA guidance. Therefore, the Existing Conditions do not include the Rock Slough Fish Screen, Los Vaqueros Expansion Project, or Middle River intake. The Middle River intake was included in the No Action Alternative.</p> |
| 1563 | 194 | <p>The proposed BDCP is inadequate as a Habitat Conservation Plan and Natural Community Conservation Plan.</p> <p>The BDCP governance structure should be revised to ensure water quality concerns are carefully considered during all stages of project implementation.</p> <p>The proposed governance structure does not provide effective representation of Contra Costa Water District's interests.</p> <p>As the only major municipal water supplier that relies solely on intakes it operates in the Delta, CCWD is situated differently from every other water district in California. Given CCWD's unique position and its distinct interests, it must have an effective voice in the implementation of the BDCP, so that it can serve as a watchdog for the protection of Delta water quality. Unfortunately, the BDCP governance structure as proposed deprives CCWD and its 500,000 customers of this voice.</p> <p>The key entities involved in implementing the BDCP are the Authorized Entity Group, the Permit Oversight Group, the Adaptive Management Team, and the Stakeholder Council. None of these groups provides CCWD -- or any other entity with interests focused on</p> | <p>Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>Please also see Master Response 39 regarding the implementation structure proposed in BDCP.</p> <p>A detailed description of the Collaborative Science and Adaptive Management Program is included in Chapter 3, Description of Alternatives, of the Final EIR/EIS.</p> <p>Please see Master Response 33 regarding the adaptive management and monitoring program.</p> |

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| | | <p>Delta water quality -- with an effective voice in the important decisions that would implement the BDCP.</p> <p>The Authorized Entity Group would consist of the Director of DWR, the Regional Director of Reclamation, and representatives of the participating state and federal contractors. BDCP Chap. 7, pp. 7-10 to 7-11. DWR and Reclamation officials cannot adequately represent the interests of an individual water district such as CCWD. DWR and Reclamation are focused on increasing water supplies, not on water quality. The participating state and federal contractors' interests diverge widely from those of CCWD. The BDCP project proponents will be focused on maximizing yield from the project conveyance facilities, not on minimizing adverse effects to drinking water quality for other water providers in the Delta. The Authorized Entity Group would not provide CCWD with an effective voice in the process of implementing the BDCP, and there is no indication that the group will act to protect Delta water quality in the face of competing concerns.</p> <p>The Permit Oversight Group would consist entirely of representatives of state and federal fish and wildlife agencies, who are charged with safeguarding the interests of the species protected by the laws they implement. BDCP Chap. 7, p. 7-13. This is an important perspective, but it does not reflect the distinct water quality and water supply issues facing CCWD and its ratepayers. To the contrary, there would be times when adaptive management goals to benefit fish are in direct conflict with goals to protect drinking water quality. For example, increased organic carbon may help fish but cause substantial adverse effects to drinking water. While interests focused on drinking water quality may not always prevail over interests focused on fish protection, protectors of Delta drinking water quality need to be at the table during the discussions on how to implement the BDCP in order to articulate the competing concerns at issue.</p> <p>The Adaptive Management Team would be chaired by the Science Manager, a staff member within the Implementation Office, and would include essentially all the members of the Authorized Entity Group and the Permit Oversight Group, plus several other designated agency scientists. BDCP Chap. 7, p. 7-16. As noted above, none of the members of the Authorized Entity Group or the Permit Oversight Group have interests that align with CCWD's. The agency scientists on the Adaptive Management Team, to the extent they are deemed to have a policy perspective, are each affiliated with organizations with interests that differ from CCWD's. [Footnote 33: Section 7.1.6 specifies that these scientists are "nonvoting" members, although it is unclear what this means given that the Adaptive Management Team is expected to operate by consensus and the definition of consensus does not distinguish between voting and nonvoting members.]</p> <p>The final body specified in the Implementation Structure is the Stakeholder Council. BDCP Chap. 7 at p. 7-19. Since the Stakeholder Council is defined as consisting of entities with an interest in the BDCP, CCWD would be eligible for membership. The BDCP specifies categories of parties who may serve on the Stakeholder Council, at least two of which might include CCWD -- CVP water contractors and local government agencies in the Delta. However, the Stakeholder Council would not adequately represent CCWD's interests for two reasons. First, although Stakeholder Council meetings would be open to the public, the Stakeholder Council itself would not be open to all interested parties; members would be "invited" by the Program Manager or "selected" from the eligible categories by the</p> | |

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| | | <p>Secretary of the California Resources Agency. There is no guarantee that CCWD would be included, especially in light of the breadth of the list of eligible stakeholders.</p> <p>Moreover, even if CCWD were a participant in the Stakeholder Council, that body would have no authority to influence the real-time decisions of the Authorized Entity Group or the Program Manager that could result in substantial adverse effects to drinking water quality in the Delta. The Stakeholder Council may "provide input" to those parties, and if the Stakeholder Council or one of its members (but not a mere member of the public) were to object to a proposed or past implementation action, the Stakeholder Council is directed to raise the matter with the decision-making entity. However, that entity would have no obligation to follow the recommendation of the Stakeholder Council, and the objection raised by the Stakeholder Council "does not create a new right or claim" to overturn the decision. Worse yet, the nonbinding "dispute resolution" process prescribed for the Stakeholder Council could take 150 days and meanwhile would not delay the implementation of the action at issue. Under this process, any dispute over a decision to implement an aspect of the BDCP would be likely to become moot before the "dispute resolution" process is completed.</p> | |
| 1563 | 195 | <p>Delta water quality considerations must be taken into account during the adaptive management process.</p> <p>The adaptive management process is a critical element of the BDCP. A "systematic process to continually improve management policies and practices" it can provide the scientific, policy, and practical basis for wide-ranging changes in the plan itself. BDCP Chap. 3, pp. 3.6-8 and 3.6-9. Adaptive management may encompass changes in Conservation Measures, including water operations and non-water related measures, changes in biological objectives, and changes in the "problem statement and model refinement." BDCP Chap. 7, Table 7-1, p. 7-3.</p> <p>Altering these parameters, which may occur years from now, may have profound effects on the biological, operational, and other impacts of the BDCP. Impacts that have been evaluated in the BDCP Draft EIR/EIS and found to be temporary may prove to be lasting; impacts deemed insignificant may produce dramatic, unexpected effects. Since the parameters and limits for adaptive management are undefined, the BDCP Draft EIR/EIS fails to evaluate the full range of impacts associated with the action alternatives, as discussed in Section 1.1.4 of these comments. This failing is particularly problematic for Contra Costa Water District, as it is uniquely vulnerable to changes in Delta water quality -- an issue that may be given little attention as adaptive management focuses on other concerns such as yield for the BDCP proponents and fish protection.</p> <p>Moreover, the governance structure of the BDCP provides no assurance that CCWD would have any opportunity to voice its concerns about adaptive management decisions, or even to know when such decisions may harm its interests until the harm has already occurred. As noted above, under the governance structure currently proposed, CCWD would not be a member of the Adaptive Management Team; the only possible venue for CCWD involvement would be through the Stakeholder Council. During the decision making process, the Adaptive Management Team "may" invite parties including the Stakeholder Council to provide input, but would have no obligation to do so. BDCP Draft EIR/EIS at pp. 7-15 to 7-17. Nor would the Adaptive Management Team be required to make its deliberations public or provide any advance notice or information to the</p> | <p>Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>RDEIR/SDESIS 4.3.4 (4A) and Chapter 8 of the Final EIR/EIS describe 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. 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.</p> <p>As described in Chapter 3 of the EIR/EIS, under adaptive management and monitoring program, monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives. Please see Master Response 33 which provides additional information on adaptive management.</p> |

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| | | Stakeholder Council; its only mandate would be to communicate to the regulatory agencies and the public, from time to time, data on the plan, adaptive management actions taken, and potential modifications. BDCP Chap. 3 at pp. 3.6-18 to 3.6-19. The Stakeholder Council would be authorized to present proposals for adaptive management actions or decisions to the Adaptive Management Team, but the Adaptive Management Team would have no obligation to respond. BDCP Chap. 3 at pp. 3.6-21 and 3.6-22. Given that CCWD would have no real-time information on the adaptive management process, the right to present proposals, through the Stakeholder Council or otherwise, would be likely to prove illusory. | |
| 1563 | 196 | <p>The proposed Implementing Agreement for the BDCP violates The Natural Community Conservation Planning Act.</p> <p>The draft Implementing Agreement for the BDCP, issued on May 30, 2014, does not comply with the Natural Community Conservation Planning Act (NCCPA), Cal. Fish & Game Code [Sections] 2800-2835. First, the assurances provided in the draft Implementing Agreement by the California Department of Fish and Wildlife to the BDCP proponents are not commensurate with the conservation assurances and implementing measures in the BDCP. To the contrary, the assurances proposed to be provided to the BDCP proponents are firm and expansive, while the conservation assurances proposed in the BDCP are inadequately funded and their effective implementation is highly uncertain. Second, the draft Implementing Agreement does not satisfy the requirement in the NCCPA that the implementation of mitigation and conservation measures "is roughly proportional in time and extent to the impact on habitat." Cal. Fish & Game Code [Section] 2820(b)(9). Third, the draft Implementing Agreement is inconsistent with CEQA and NEPA.</p> <p>The proposed assurances provided to the BDCP proponents are not commensurate with the proposed conservation and implementing measures.</p> <p>Under the NCCPA, the CDFW [California Department of Fish and Wildlife] may provide to the NCCP participants assurances that are commensurate with the long-term conservation assurances and associated implementation measures established by the Plan. In determining the level of assurances to provide, CDFW must consider, among other factors, the adequacy of the analysis of the impact of take on covered species, the use of the best available science to make assessments about the impacts of take and the reliability of mitigation strategies, the appropriateness of the size and duration of the plan with respect to the quality and amount of data, and the sufficiency of mechanisms for long-term funding of all components of the plan and contingencies. Cal. Fish & Game Code [Section] 2820(f).</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |
| 1563 | 197 | <p>Overly expansive proposed assurances:</p> <p>As proposed, the BDCP proponents would be given broad assurances that, assuming the BDCP is implemented according to the terms of the draft Implementing Agreement, no "additional land, water, or financial compensation" or "additional restrictions on the use of land, water or other natural resources" would be required if unforeseen circumstances occur. Draft Implementing Agreement, [Section] 14.0. Further, the draft Implementing Agreement proposes that while adjustments may be made to the Conservation Measures in the BDCP through the adaptive management process, this process may not alter the</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take</p> |

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| | | <p>financial commitments of the BDCP proponents or require the commitment of additional resources. Draft Implementing Agreement, [Sections] 10.3.7.1 and 10.3.7.3.3.</p> <p>Similarly, if funding is deemed inadequate, either because costs were underestimated or because the State and federal public funding does not materialize as anticipated, the draft Implementing Agreement provides that the BDCP proponents would not be required to provide land, water, or monetary resources beyond their commitments in the BDCP (draft Implementing Agreement, [Section] 13.2) either directly or through another agency (draft Implementing Agreement, [Section] 13.1.1 and [Section] 20.1.2).</p> <p>Further, the BDCP proponents seek assurances under the draft Implementing Agreement that their permits would not be suspended or revoked in the event of a shortfall in State or federal funding, under the assumption that the rough proportionality requirement of the NCCPA will be met when the BDCP proponents fulfill their obligations related to CM1 and associated mitigation. As discussed in Section 7.2.2 below, rough proportionality is not attained under the BDCP because the impacts of CM1 specifically, and the BDCP generally, are not fully defined, analyzed or mitigated in the BDCP Draft EIR/EIS.</p> <p>The BDCP proponents also appear to try to evade any responsibility for financial or resource costs associated with new regulations such as State Water Resources Control Board flow criteria or Environmental Protection Agency water quality regulations -- the Implementation Office is first charged with working with regulatory agencies to eliminate any inconsistency with the BDCP, and then if necessary to work with the fish and wildlife agencies to modify the BDCP, subject to the assurance of no additional water or funding. BDCP Chap. 6 at pp. 6-46 and 6-47. These other agencies (the State Water Board and the USEPA [U.S. Environmental Protection Agency]) are not parties to the draft Implementing Agreement. The draft Implementing Agreement applies only to the signatory agencies and their respective jurisdictions, and the assurances can only relate to the project described in the BDCP and analyzed in the BDCP Draft EIR/EIS, not future regulations by other agencies.</p> | <p>authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |
| 1563 | 198 | <p>Inadequate conservation and funding assurances:</p> <p>The high level of uncertainty surrounding the BDCP -- including how the Conservation Measures would be funded, the schedule for their implementation, and their effectiveness in mitigating the impacts of the covered activities and contributing to recovery of the covered species -- cannot support a 50-year permit with assurances that no additional funding or resources, including water, would be required of the permittees over the full permit period.</p> <p>The total cost of the BDCP is estimated at \$24.75 billion. BDCP, Chap. 8, Table 8-37. Of this amount, more than \$16 billion is for construction and operation of new conveyance facilities (CM1), which the State and federal water contractors that are permittees under the BDCP have committed to fund. Of the remaining \$8.73 billion, the contractors have committed to \$903 million, or about 10 percent. The remaining amount is anticipated to come from future state water bonds, and future state and federal appropriations either for new projects or from re-directed funds for existing programs, grant programs, and interest income. None of these sources are guaranteed; no federal or state agency has committed to any portion of the nearly \$8 billion needed over the 50-year implementation period. CM1 is an infrastructure project primarily for the benefit of the</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement. Please see Master Response 5 related to Project Funding.</p> |

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| | | <p>permittees that may slightly reduce some impacts on covered species ("some minor benefit related to reduced entrainment"; see paragraph below), but would also cause significant adverse impacts. It has the greatest expense of all the proposed Conservation Measures, but does not provide commensurate benefits to covered species. The commitment to fund CM1 is no different than a developer participating in an HCP/NCCP committing to fund a housing development; it cannot be considered in determining whether adequate funding has been provided for purposes of issuing a permit and providing assurances under the NCCPA.</p> <p>Further, the proposed schedule of implementation of the BDCP Conservation Measures is unsupported by evidence. Given the scale of the undertaking, the multiple steps and logistical complexities involved, the need for studies, scientific review, and financial and human resources, it is unlikely that most of the Conservation Measures would be initiated in the near term as indicated in Chapter 6 of the BDCP, let alone yield any tangible benefit to covered species during that period. Past experience indicates that large restoration projects in the Delta take more time than allowed for in the BDCP. For example, the Meins Landing property was purchased for restoration in 2005; yet eight years later, the restoration design is still in development. BDCP Appendix 5, Attachment 5E.B. Without a level of confidence in the implementation schedule, California Department of Fish and Wildlife cannot make the requisite finding regarding the implementation schedule to support the permit assurances that would be provided by the draft Implementing Agreement.</p> | |
| 1563 | 199 | <p>The cornerstone of the BDCP's mitigation and recovery efforts is the restoration of 65,000 acres of tidal marsh. Yet there is significant uncertainty regarding the efficacy of tidal marsh restoration. Two of numerous examples are included here, one related to Delta smelt and the other to spring-run Chinook salmon. With regard to Delta smelt:</p> <p>"the BDCP's main beneficial effect for Delta smelt is potentially greater food production from restoration actions, with some minor benefit related to reduced entrainment....While there is potential for large benefits for delta smelt, particularly if the SRWTP [Sacramento Regional Wastewater Treatment Plant] upgrades help restore the viability of a diatom based food web, these benefits cannot be validated and this effects analysis has appreciable uncertainty in this particular regard. Therefore, it is concluded that the BDCP will have a beneficial effect on the species, with low certainty in relation to the magnitude of the benefits occurring from food production and the ability of the Delta smelt population to access it." BDCP, Chap. 5 at p. 5.5.1-42.</p> <p>Similarly for salmon, the BDCP states: "The change in subtidal habitat is concluded to be moderate for both foragers and migrants [juveniles], again with moderate certainty. There is some uncertainty related to how much restored habitats may be reduced in value because of colonization by IAV [invasive aquatic vegetation] and associated nonnative fish species that may prey on juvenile Chinook salmon or compete for food. CM13 Invasive Aquatic Vegetation Control aims to control IAV in the ROAs [Restoration Opportunity Areas], which may limit predation, but there is uncertainty related to the ability to do so effectively." BDCP, Chap. 5 at p. 5.5.4-7.</p> | <p>This comment actually pertains to the 2013 Draft BDCP, as opposed to the 2013 Draft EIR/EIS. This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP Effects Analysis. Alternative 4 remains a viable alternative. Since the time of the 2013 Draft BDCP and 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |
| 1563 | 200 | <p>Even for CM1, which was purportedly analyzed at a detailed project level for purposes of CEQA and NEPA, the permittees admit to significant uncertainty with regard to impacts</p> | <p>This comment actually pertains to the 2013 Draft BDCP, as opposed to the 2013 Draft EIR/EIS. This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP Effects</p> |

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| | | <p>and parameters of operation of the new conveyance facilities. See BDCP Table 3.4.1-5 for a list of key uncertainties and the proposed research to shed light on these uncertainties. The permittees have not provided conservation assurances; rather, they are promoting a large-scale research program with speculative funding, which is an insufficient basis for a 50-year permit that locks in funding, water and other resource contributions before implementation begins.</p> <p>The low level of certainty regarding the conservation measures does not meet the standard for granting long-term assurances under either the NCCPA or federal ESA. As noted by the Delta Science Program Independent Review Panel (Panel) in its March 2014 review of the BDCP Draft EIR/EIS, "many of the critical justifications behind the supposed benefits of the conservation measures are highly uncertain." (Parker et al., 2014 at p. 6) The Panel further noted: "Uncertainty plus uncertainty is more uncertainty. Uncertainty never averages or cancels out uncertainty." (Parker et al., 2014 at p. 32)</p> | <p>Analysis. Alternative 4 remains a viable alternative.</p> <p>Since the time of the 2013 Draft BDCP and 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |
| 1563 | 201 | <p>Lack of accountability for achieving the biological objectives:</p> <p>The draft Implementing Agreement defines biological objectives as specific, measurable outcomes that are expected to be achieved through implementation of the Conservation Strategy. Under the NCCPA, the BDCP must include a monitoring program "to assess the adequacy of the mitigation and conservation strategies or activities and to provide information to direct the adaptive management program." Cal. Fish & Game Code [Section] 2805(g). The BDCP does not comply with this requirement; it has delegated development of specific metrics and protocols for effectiveness monitoring to the Adaptive Management Team, thus deferring guidance from the regulatory agencies on this significant element of the BDCP until after the permits are approved and in place. The permittees also seek assurances that the permits would not be revoked for failure to meet biological objectives, under the circular reasoning that the permittees satisfy their obligations to achieve the biological goals and objectives by implementing the BDCP, including adaptive management (draft Implementing Agreement [Section]10.1). But without specifying either how the BDCP would be adaptively managed or the biological objectives that will be met, the conservation requirements are illusory at best. Adaptive management would be subject to limitations under the draft Implementing Agreement based on the assurances that no additional funding, water or other resources would be required beyond that currently specified in the BDCP -- a contribution level set prior to any of the research and monitoring that would help define the appropriate mitigation and Conservation Measures, and before the State Water Resources Control Board issues its outflow criteria. If more outflow is deemed necessary, the permittees propose to either shift resources from less effective Conservation Measures or use the Supplemental Adaptive Management Fund to purchase water from willing sellers. This is insufficient. There must be a more robust description of how the effectiveness of Conservation Measures would be evaluated so that the Adaptive Management Program does not simply evaluate the cost effectiveness of various Conservation Measures in a manner that ultimately favors the water projects at the expense of species and water quality.</p> <p>In summary, the draft Implementing Agreement proposes to shift all the risks and uncertainties of funding, implementation, and performance of the BDCP to other agencies and the public at large without committing to meet any specific biological objectives. As a result, the wildlife agencies will not be able to make the necessary findings to support a</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |

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| | | 50-year permit. | |
| 1563 | 202 | <p>The proposed mitigation and conservation measures are not roughly proportional in time and extent to the impact on habitat or covered species.</p> <p>Rough proportionality is defined in the draft Implementing Agreement as "implementation of BDCP Conservation Measures that is roughly proportional in time and extent to the impact on habitat or Covered Species authorized under the BDCP and as required by Fish and Game Code [Section] 2820(b)(9)." Draft Implementing Agreement, [Section] 3.51. The draft Implementing Agreement further states that if the conservation measures are implemented in accordance with the schedule and procedure detailed in Chapter 6, Section 6.1.2 of the BDCP, it will be assumed that rough proportionality is maintained (draft Implementing Agreement, [Section] 11.1.1). It is not enough to simply assume such a key requirement will be met; there must be a factual demonstration of rough proportionality.</p> <p>Here, the uncertainties surrounding the extent and timing of benefits that can be expected from implementation of these measures makes a determination of rough proportionality based simply on initiating activity untenable.</p> <p>Mitigation for fish impacts from the BDCP requires restoration of tidal habitat. As described above, there is significant scientific uncertainty as to the effectiveness of the restoration for recovering impacted fish. Even if it proved ultimately successful in significantly advancing fish species recovery, the restoration is spread over the 50-year project period, and the benefits would accrue sometime after the construction, so the benefits are removed in time from the impacts. This is not a basis for assuming rough proportionality is met.</p> <p>It is also not clear why 8,000 acres of tidal restoration (included in CM4) and 17,000 to 20,000 acres of seasonal floodplain habitat (included in CM2 and CM5), which are required under existing permits, would count toward maintaining rough proportionality for CM1 when this restoration is required for past impacts of the CVP and SWP and impacts during the interim period before CM1 is operational. Finally, as explained in Section 2 of these comments, not all the impacts of implementing the BDCP have been identified or analyzed. Rough proportionality determinations must include all the impacts of all the Conservation Measures, which could occur within a couple of years of project approval, as well as the long-term effects. Relying on a 50-year restoration effort with uncertain funding and results does not meet the intent of maintaining rough proportionality.</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement.</p> |
| 1563 | 203 | <p>The draft Implementing Agreement is inconsistent with CEQA and NEPA.</p> <p>The draft Implementing Agreement references the BDCP Draft EIR/EIS and future CEQA and NEPA processes in [Sections] 20.2 and 20.1, respectively. The description of the current process is incomplete in both cases because it does not acknowledge that only Conservation Measure 1 was reviewed at a project level of detail and that all the other covered actions were reviewed at a programmatic level and will require additional environmental analysis before projects can be approved and implemented. Mitigation for any new impacts identified in the project-level analysis would have to be funded and may not be subject to the cost cap that the permittees seek. Where additional CEQA or NEPA</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). Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the</p> |

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| | | <p>compliance is required, instead of committing to a full and honest analysis, the draft Implementing Agreement would commit U.S. Fish and Wildlife Service, National Marine Fisheries Service and California Department of Fish and Wildlife to "not recommend or request the imposition of any additional or more stringent minimization or mitigation measures related to the protection or conservation of Covered Species or their habitat unless required by applicable law. Except in those instances, [the wildlife agencies] will notify the lead NEPA [or CEQA] agency that the Conservation Measures in the BDCP fully address any impact to or incidental take of any Covered Species or habitat resulting from Covered Activities or Associated Federal Actions." Draft Implementing Agreement, [Sections] 20.1.9, 20.2.1.2.</p> <p>Additionally, the draft Implementing Agreement does not mention the potential need for CEQA or NEPA compliance for changes that are recommended through the Decision Tree, Adaptive Management or Real Time Monitoring processes but were not adequately analyzed in the BDCP Draft EIR/EIS. Although the BDCP Draft EIR/EIS does include some project-level analysis related to these processes, the draft Implementing Agreement must acknowledge that additional CEQA/NEPA work may be needed and it must integrate a commitment to provide mitigation for all impacts revealed during the CEQA and NEPA processes.</p> | Implementing Agreement. |
| 1563 | 204 | <p>The funding information in the BDCP is incomplete, unrealistic and speculative.</p> <p>The funding information provided in Chapter 8 of the BDCP is incomplete, unrealistic and speculative. The resulting uncertainty does not provide an adequate level of assurance that the plan would be funded to meet the requirements of either the NCCPA or the federal ESA, and makes it impossible for water contractors that are not permittees to assess the potential financial obligations that might result from implementation of the BDCP.</p> <p>The BDCP states that: "... this chapter is not a financing plan to support the issuance of bonds or to provide a basis for the establishment of new funding mechanisms; nor does it establish the final allocation of cost or repayment responsibility; rather, financing plans will be prepared separately by various funding agencies and through future discussions between state and federal agencies." BDCP, Chap. 8 at p. 8-2. And again, it reads: "It is important to note that this chapter is not a financing plan for the state or federal water contractors or any other party. Separate financing plans, funding agreements, legislative authority, and other documents will be needed to enable the use of certain funding sources." BDCP, Chap. 8 at p. 8-64. By its own admission, the BDCP does not actually contain a plan for funding implementation, but instead asks that it be taken on faith that legislation will be passed, agreements will be reached, and bonds will be approved by voters, at the right time and for the right amount of money to implement the plan. The BDCP also admits that many of its costs are programmatic, which makes sense because many of the Conservation Measures have only been defined at a programmatic level. BDCP, Chap. 8 at p. 8-1. It is very likely that the estimates will increase as the measures are further defined. Yet the BDCP proponents seek to cap their financial contributions to BDCP implementation shifting all the financial risk to the state and federal governments and the public. See Section 7.2.1 of these comments for discussion of the assurances in the draft Implementing Agreement.</p> <p>Even for CM1, which is evaluated in the BDCP Draft EIR/EIS at a project level of detail and</p> | <p>This comment actually pertains to the 2013 Draft BDCP, as opposed to the 2013 Draft EIR/EIS. This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft BDCP Effects Analysis. Alternative 4 remains a viable alternative.</p> <p>Since the time of the 2013 Draft BDCP and 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. A modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP, including the Implementing Agreement. Please see Master Response 5 related to Project Funding.</p> <p>As described in Appendix 3B of the EIR/EIS, the commitments included in Section 3.B.3 of the EIR/EIS are presented in response to economic effects that could continue following implementation of available mitigation measures that may result in less than significant effects or could continue to result in significant and unavoidable effects that would be addressed in the DWR Notice of Determination and the Reclamation Record of Decision. CEQA does not specifically analyze economic impacts that are not caused by physical impacts or result in physical impacts of the proposed project. The lead agencies are committing to the actions included in Section 3.B.3 as part of the project descriptions.</p> |

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| | | <p>for which implementation is scheduled to begin immediately upon project approval, the BDCP does not elaborate on how the participating state and federal water contractors will pay the substantial costs needed for its construction and operation. The BDCP is silent on the distribution of costs between urban and agricultural contractors and between the CVP and SWP; potential costs to "non-participating" CVP contractors from perceived system-wide benefits (e.g., Level 2 refuge supplies); and the details of back-stops or guarantees for the funding in case of default of one or more the permittees. The document says "the best assurance of contractor funding for the BDCP proposed action is if there is a business case to be made for it; that is, if the present value of the economic benefits of the BDCP are sufficiently higher than the present value of the costs that are assumed to be assigned to the contractors." BDCP, Chap. 8 at pp. 8-82 to 8-83. Unfortunately, the BDCP's willingness-to-pay analysis is flawed because it assumes a significant increase in deliveries (approximately 1.3 MAF), which is not borne out by the BDCP's own modeling. Despite the repeated commitment that the project proponents will fund CM1, there is nothing concrete in the record that assures these full costs will be paid, much less the costs of the remaining Conservation Measures.</p> <p>The BDCP permittees assume that the state and federal governments will provide over \$7 billion toward implementation of the BDCP (almost 90% of the costs of CM2 through 21), although they do not specify how that obligation will be split. State funding is assumed to come primarily from new bond measures. Bond funding is speculative, both in terms of whether bond measures will pass and how much bond funding would be made available for the BDCP. On the federal side, other than a small federal appropriation specifically for the BDCP, which the proponents assume will triple and be successfully appropriated every year for 50 years, the BDCP relies on past federal appropriations for similar projects and programs, and assumes the funding will continue to be appropriated and the programs will be re-purposed or expanded to support implementation of the BDCP. The BDCP offers no basis for assuming that these other programs will be adjusted to accommodate the BDCP, or that funding will continue. Federal appropriations are exceedingly uncertain, and discretionary programs are often cut or deferred. Creating new funding programs through legislation earmarking the BDCP is also extremely speculative.</p> <p>The BDCP has not accurately characterized the difficulty of obtaining this level of state and federal funding, but simply assumes it will materialize. Neither does the BDCP adequately evaluate likely scenarios if there is a funding shortfall -- merely one paragraph is devoted to this important topic. The BDCP proponents' solution is to have the Implementation Office work to reduce costs or adjust the scope of the BDCP, but in no instance will they provide additional land, water or monetary resources beyond their commitments. The funding element of the BDCP needs to be redone to provide more detailed analysis including a specific breakdown of who will pay what, identification of more credible funding sources, and a legitimate plan for addressing funding shortfalls before the Implementing Agreement can be approved by the wildlife agencies and permits can be issued.</p> | |
| 1563 | 205 | <p>The proposed BDCP violates existing laws and policies.</p> <p>The proposed BDCP violates the Delta Protection Act (Cal. Wat. Code [Sections] 12200-12205).</p> <p>The Delta Protection Act (Act) was enacted in 1959 and determined by the Legislature to</p> | <p>Effects of the alternatives on salinity levels are described in Chapter 8, and Appendix 8H of the EIR/EIS and Appendix A of the RDEIR/SDEIS. Modeling results indicate that the implementation of the water conveyance facilities may positively or adversely affect in-Delta water quality, depending on a number of factors including location, time of year, and hydrologic conditions. See tables in Appendices 8E through 8N for specific results related to various water quality constituents (including bromide and chloride). In addition to</p> |

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| | | <p>be "necessary for the protection, conservation, development, control and use of the waters in the Delta..." Cal. Wat. Code [Section] 12200. The Act declares that one of the functions to be served by development of the State's water system, in coordination with the Federal Central Valley Project, "...shall be the provision of salinity control and an adequate water supply for the users of water in the Sacramento-San Joaquin Delta." Cal. Wat. Code [Section] 12202 (emphasis added). In other words, the State Water Project, in coordination with the Central Valley Project, is required to maintain Delta water quality and supply. The proposed BDCP and accompanying Draft EIR/EIS ignore this basic purpose of the Act.</p> <p>The BDCP Draft EIR/EIS acknowledges significant water quality impacts from the project, including adverse salinity effects, near Contra Costa Water District intakes in the Plan Area, but it fails to provide an accurate assessment of these impacts (Section 2.2) or to provide legally adequate mitigation (Section 3). In light of the project's significant impacts to water quality and water supply (Section 2.3), the BDCP project proponents should, consistent with the Act, commit "to provide a substitute water supply to the users in [the] Delta in lieu of that which would be provided as a result of salinity control" with "...no added financial burden placed upon said Delta water users solely by virtue of such substitution." Cal. Wat. Code [Section] 12202.</p> | <p>potential effects associated with the project and alternatives, modeling results for the No Action Alternative indicate that, with or without the proposed project, rising sea levels will bring saline tidal water further into the Delta than occurs at present. Please see Master Response 14.</p> <p>It should be noted that since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <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. The EIR/EIS Mitigation Monitoring and Reporting 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. Please see Master Response 14 relating to water quality, Master Response 22 related to Mitigation Measures.</p> <p>Please see Final EIR/EIS - significance table in Executive Summary, Chapter 8 Water Quality and Appendix 8I Mercury.</p> |
| 1563 | 206 | <p>The proposed BDCP violates the Sacramento-San Joaquin Delta Reform Act of 2009 (Cal. Wat. Code [Sections] 85000-85350).</p> <p>In enacting the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act), the Legislature declared its intent "to provide for the sustainable management of the Sacramento-San Joaquin Delta ecosystem...to protect and enhance the quality of water supply from the Delta ..." Cal. Wat. Code [Section] 85001(c) (emphasis added). For this reason, the BDCP, in order to be incorporated into the Delta Plan and to receive State funding, is specifically required to provide "a comprehensive review and analysis" of, among other things, "[t]he potential effects of each Delta conveyance alternative on Delta water quality." Cal. Wat. Code [Section] 85320(b)(2)(G). The BDCP and the BDCP Draft EIR/EIS fail to disclose the full range of the project's impacts on Delta water quality and thus fail to provide this statutorily required "comprehensive review and analysis." Further, the Delta Plan, in which the BDCP is intended for inclusion (Cal. Wat. Code [Section] 85320), is required to include measures for "[i]mproving water quality to protect human health and the environment" and strategies to "[i]mprove water quality to meet drinking water, agriculture, and ecosystem long-term goals." Cal. Wat. Code [Section] 85302(d)(3) and [Section] 85302(e)(5) (emphasis added). The BDCP, as an element of the Delta Plan, fails to comply with either of these statutory requirements. As explained in the previous sections of these comments, while the BDCP Draft EIR/EIS acknowledges significant impacts to water quality, it also obscures and fails to properly mitigate for these impacts.</p> | <p>For more information regarding the Proposed Project's compliance with the Delta Reform Act please see Appendices 3A and 3I in the EIR/EIS and Master Response 31. Please also see Master Responses 3 regarding purpose and need and Master Response 14 regarding water quality.</p> |

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| | | <p>The BDCP and its accompanying Draft EIR/EIS therefore fail to meet the requirements of the Delta Reform Act and the Delta Plan by: disregarding the legislative intent to protect and enhance the quality of water supply; failing to provide the required comprehensive review and analysis of its impacts to water quality; and failing to improve water quality to meet public health and long-term drinking water goals. The BDCP project proponents cannot absolve themselves from compliance with the substantive requirements of the Delta Reform Act through a Statement of Overriding Considerations under CEQA; these requirements exist separate and independent from, and are by no means negated by, CEQA's provisions allowing agencies to weigh a project's asserted benefits against its significant environmental impacts.</p> | |
| 1563 | 207 | <p>The proposed BDCP violates California water rights laws.</p> <p>In addition to its other stated purposes, the Delta Reform Act reaffirms the existing California water right law, stating that it "does not diminish, impair, or otherwise affect in any manner whatsoever..." any "water rights protections" and that it "does not affect...any water right." Cal. Wat. Code [Section] 85031(a) and [Section] 85032(i). But the BDCP Draft EIR/EIS determined that the proposed project and the alternatives would create significant impacts to Delta water quality, including impacts regarding salinity (including bromide, chloride, and electrical conductivity), mercury, organic carbon, pesticides, and selenium; many of these impacts will injure existing water rights. The BDCP Draft EIR/EIS does not include adequate mitigation and thus these impacts are determined to be "significant and unavoidable." But the BDCP project proponents cannot avoid compliance with the requirements of California's water rights law through a Statement of Overriding Considerations -- these requirements are separate and independent from, and are not nullified by, CEQA's provisions allowing agencies to weigh a project's asserted benefits against its significant environmental impacts.</p> <p>Furthermore, the BDCP Draft EIR/EIS both fails to evaluate and improperly underestimates significant impacts to water quality and water supply. Impacts to water quality are a recognizable injury to water rights as first declared by the California Supreme Court in <i>Phoenix Water Co. v. Fletcher</i>, 23 Cal. 481 (1863). The water quality impacts of the BDCP would reduce Contra Costa Water District's ability to divert under its existing water right License 10514 and Permits 19856 and 20749 by: increasing the likelihood and number of potential exceedances of Delta water quality objectives, thus substantially degrading water quality at CCWD's intakes; degrading Delta water quality from its current condition when water quality objectives otherwise would have been met, so that water that could have been diverted by CCWD is no longer suitable for diversion; and reducing the periods of time during which CCWD may divert under Permit 20749.</p> <p>Ultimately, the BDCP Draft EIR/EIS does not adequately disclose the requisite information to make a reliable determination regarding the scope of the impacts to water rights held by CCWD or any other legal user of water, and any potential associated environmental impacts. The BDCP Draft EIR/EIS fails to clearly describe or discuss operational changes and parameters, including increases in water transfers that may produce significant water quality and water supply impacts (as discussed in Section 1.1 of these comments) and thus create injury to water rights held by CCWD and others. Additionally, the project description contains inconsistencies regarding operational criteria, including water quality objectives. For example, the BDCP states that "[a]s part of the BDCP criteria, the location</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered in the RDEIR/SDEIS and the Final EIR/EIS. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>Alternatives 4A, 2D, and 5A were analyzed in the RDEIR/SDEIS and Final EIR/EIS assuming that all of the water quality objectives currently in place would remain as under the Existing Conditions and No Action Alternative, including the EC objective for Emmatton. Alternatives 2D, 4A, and 5A did not include significant impacts for any constituents with water quality objectives in the Bay Delta Water Quality Control Plan as compared to the No Action Alternative with implementation of the identified mitigation for compliance with EC objectives. Thus, no change to the Water Quality Control Plan would be necessary based on implementation of the Proposed Project, Alternative 4A. For more information regarding water quality, please see Master Response 14.</p> <p>Mitigation required by the settlement agreement between DWR and the Contra Costa Water District is analyzed in Chapter 31B of the Final EIR/EIS. Please see Final EIR/EIS - significance table in Executive Summary, Chapter 8 Water Quality and Appendix 8I Mercury.</p> |

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| | | <p>of where the D-1641 Emmaton salinity control requirement is proposed to be complied with is changed to Threemile Slough juncture." BDCP, Chap. 3 at p. 3.4-15. However, the BDCP Draft EIR/EIS (Chap. 3 at p. 3-33) states that "[f]or the purposes of modeling, this assumption [i.e., the move of compliance from Emmaton to Threemile Slough] has been incorporated into the No Action Alternative, as well as each action alternative." There is no justification to assume a change in water quality objectives in the No Action Alternative; doing so only obscures the impact of this change in the project alternatives.</p> <p>The BDCP Draft EIR/EIS fails to adequately provide the State Water Resources Control Board (SWRCB), or any reviewer, with the scientific basis for anticipated changes to water quality or flow objectives (SWRCB, 2013).</p> | |
| 1563 | 208 | <p>The proposed BDCP violates State and Federal antidegradation policies (State Water Resources Control Board Resolution 68-16 and 40 C.F.R [Section] 131).</p> <p>As the SWRCB declared over four decades ago, "it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve [the] highest water quality consistent with maximum benefit to the people of the State...." SWRCB, Resolution No. 68-16, Statement of Policy with respect to Maintaining High Quality of Waters in California (Oct. 28, 1968); see also Cal. Wat. Code [Section] 174 (establishing SWRCB's authority over the State's water resources). This is the context in which the SWRCB also resolved that "[w]henver the existing quality of water is better than the quality established in policies [now water quality objectives]..., such existing high quality will be maintained...." SWRCB Res. 68-16 at [Paragraph] 1. As the SWRCB's then-Executive Officer explicitly recognized in 2004, "The requirement in SWRCB Resolution No. 68-16 to maintain the existing high quality of water ... is itself a water quality objective" (SWRCB, 2004 at p.7 n.6).</p> <p>Moreover, the federal antidegradation regulations provide, "[w]here the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds ... that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 C.F.R. [Section] 131.12(a)(2) (emphasis added). The BDCP does not provide any economic or social development benefits in the area in which the waters are located, and therefore, the State cannot not allow any degradation in water quality. Any degradation in water quality in the Delta also is not appropriate as the federal regulations provide that "[w]here high quality waters constitute an outstanding National resource, such as . . . waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." 40 C.F.R. [Section] 131.12(a)(3). Even assuming the State could allow for the degradation of Delta water quality, the federal regulations provide that "[i]n allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully." 40 C.F.R. [Section] 131.12(a)(2).</p> <p>Any degradation of the quality of water available to Contra Costa Water District, as described in detail in Section 2.2 of these comments, from that historically available would violate antidegradation requirements and is precluded under both state and federal law. As described in the previous sections of these comments, the BDCP Draft EIR/EIS fails to fully disclose and obscures Delta water quality impacts, and thus</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered in the RDEIR/SDEIS and the Final EIR/EIS. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>Alternative 4A would have substantially less effect on Delta water quality as compared to the No Action Alternative 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 as a mitigation measure. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based, as described in Chapter 8 of the Final EIR/EIS. Please see Master Response 14 regarding water quality, including a discussion regarding assessment of water quality degradation in the EIR/EIS, and the relevance of federal and state antidegradation policy considerations in the CEQA/NEPA process.</p> |

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| | | significantly understates the actual water quality degradation that would occur in violation of state and federal law. | |
| 1563 | 209 | <p>The proposed BDCP violates Section 404 of the Clean Water Act (33 U.S.C. [Section] 1344).</p> <p>Pursuant to Section 404 of the Clean Water Act, a fill permit may be issued by the U.S. Army Corps of Engineers only where the permit applicants demonstrate that the proposed project is the "least environmentally damaging practicable alternative." This requirement, which is codified in the regulations adopted by the Environmental Protection Agency to implement Section 404, encompasses the general prohibition that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 C.F.R. [Section] 230.10(a). As applied to the habitat restoration elements of the BDCP, this permitting requirement will have to be met on a project by project basis; the programmatic water quality impact analysis of the restoration elements included in the BDCP Draft EIR/EIS, in addition to its flaws under CEQA and NEPA (discussed in Section 1.2 of these comments), will not be adequate for this purpose. Additionally, as discussed in these comments under Section 4, the lack of an alternatives analysis for the restoration elements is inconsistent with the requirement to issue a Section 404 permit only if there is no practicable alternative available with less environmentally damaging impacts.</p> <p>The U.S. Environmental Protection Agency regulations implementing Section 404 also establish the prohibition that "no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States." 40 C.F.R. [Section] 230.10(c). The regulations specify that effects that contribute to such significant degradation include significant adverse effects on human health or welfare, including effects on municipal water supplies. 40 C.F.R. [Section] 230.10(c)(1).</p> <p>Further, before issuing a Section 404 permit, the Corps must conduct a robust public interest review. 33 C.F.R. [Section] 320.4(a). The regulations governing this review specify that the decision whether to issue a permit must consider issues such as water supply and water quality. <i>Id.</i> See also <i>Sierra Club v. Van Antwerp</i>, 709 F. Supp. 2d 1254, 1270 (S.D. Fla. 2009) (Section 404 permit evaluation must consider impacts on municipal water supplies).</p> <p>Thus, the future permitting process for the BDCP under Section 404 must thoroughly consider impacts not only to wetlands and aquatic wildlife, but also to water quality and municipal water supplies.</p> | <p>The Final EIR/EIS and the RDEIR/SDEIS includes an additional section specific to Supplemental Information for the U.S. Army Corps of Engineers (Corps) (See RDEIR/SDEIS Appendix E). Please see Master Response 45.</p> <p>DWR has designed the Proposed Project to avoid impacts to Waters of the United States to the maximum extent practicable and has developed measures to minimize any unavoidable impacts. Numerous iterations of footprint locations for each of the conveyance components were evaluated to maximize the use of upland areas. An analysis will be prepared and submitted to the Corps to demonstrate that the project as proposed is the least environmentally damaging practicable alternative, as required by Section 404(b)(1) of the Clean Water Act.</p> <p>DWR will submit a plan to the Corps that sets out an approach to mitigating for any unavoidable impacts to waters, including an assessment of the functions and values that will be provided by such mitigation to meet the "no net loss" goal established by the Corps and the Environmental Protection Agency.</p> <p>Several of the Avoidance and Minimization Measures (AMMs) presented in Appendix 3B of the Final EIR/EIS will serve to avoid and minimize impacts to wetlands and other waters of the US. These include: AMM2 - Construction Best Management Practices and Monitoring, AMM3 - Stormwater Pollution Prevention Plan, AMM4 - Erosion and Sediment Control Plan, AMM5 - Spill Prevention, Containment, and Countermeasure Plan, AMM6 - Disposal and Reuse of Spoils, Reusable Tunnel Material, and Dredged Material, AMM7 - Barge Operations Plan, AMM10 - Restoration of Temporarily Affected Natural Communities, AMM12 - Vernal Pool Crustaceans, AMM30 - Transmission Line Design and Alignment Guidelines, AMM34 - Construction Site Security, and AMM36 - Notification of Activities in Waterways. These AMMs will be implemented at all phases of the Project, including siting, design, construction, and operations and maintenance. Additional measures that will be implemented to avoid and minimize impacts to species which utilize aquatic habitats such as California tiger salamander, giant garter snake, California red legged frog, western pond turtle, riparian woodrat, and riparian brush rabbit, will also serve to reduce Project impacts to wetlands and other waters of the US.</p> <p>As part of the USACE Record of Decision, a thorough public interest review will be conducted to make sure that the project is in fact consistent with public need and interest.</p> |
| 1563 | 210 | <p>The proposed BDCP violates Section 401 of the Clean Water Act (33 U.S.C. [Section] 1341).</p> <p>Section 401 of the Clean Water Act requires the State to find that a discharge to waters or wetlands will comply with all applicable water quality standards and requirements, including all State water quality standards. This means that either the State Water Resources Control Board (SWRCB) or the appropriate Regional Water Quality Control Boards (RWQCB) must find that there is a reasonable assurance that the certified activity</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis.. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered in the RDEIR/SDEIS and the Final EIR/EIS. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the</p> |

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| | | <p>will not violate water quality standards.</p> <p>Federal regulations (40 C.F.R. [Section] 131) specify that the water quality standards include the designated beneficial uses of the receiving waters, the water quality criteria for those waters, and the anti-degradation policy. The California Porter-Cologne Water Quality Act (Cal. Wat. Code [Sections] 13000-14958) requires the adoption of Water Quality Control Plans that identify legally binding beneficial uses of water, water quality objectives that will ensure reasonable protection of the designated beneficial uses, specified discharge prohibitions, and a plan for achieving water quality objectives.</p> <p>Permitting of the BDCP, including wetland habitat restoration, will require water quality consistency determinations by the SWRCB or appropriate RWQCB, which in turn will require specific analyses of effects on water quality including the protection of all beneficial uses, such as uses of the Delta for drinking water. The vague program-level analyses of the habitat restoration measures in the BDCP Draft EIR/EIS are not sufficient to support the issuance of Section 401 water quality certifications.</p> | <p>Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives.</p> <p>The water quality assessment in Chapter 8 of the Final EIR/EIS and modeling results presented in the associated Chapter 8 appendices find that the project (Alternative 4A) would result in less-than-significant impacts to water quality for all parameters assessed except for mercury and electrical conductivity (EC). Impacts related to EC under Alternative 4A would be less than significant with implementation of the proposed mitigation as compared to the No Action Alternative. See Master Response 14, Water Quality.</p> <p>The assessment of potential water quality effects of the project alternatives fulfills a primary public disclosure purpose of the CEQA and NEPA process. The Clean Water Act section 401 regulatory compliance process is separate from the CEQA/NEPA process, and involves its own procedures and policies.</p> |
| 1563 | 211 | [ATT 1: Alameda County Water District, City of San Diego, Contra Costa Water District, East Bay Municipal Utility District, San Diego County Water Authority, San Francisco Public Utilities Commission, and Otay Water District, 2013. Letter to U.S. Department of Interior and California Natural Resources Agency regarding A Portfolio-Based BDCP Conceptual Alternative. January 16, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 212 | [ATT 2: Baxter, R., R. Breuer, L. Brown, M. Chotkowski, F. Feyrer, M. Gingras, B. Herbold, A. Mueller-Solger, M. Nobriga, T. Sommer and K. Souza. (2008) Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. (Available at: http://www.science.calwater.ca.gov/pdf/workshops/POD/IEP_POD_2007_synthesis_report_031408.pdf)] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 213 | [ATT 3: BDCP, 2008. BDCP Interactive CalLite Screening Evaluations II. Meeting Summary. December 1-2, 2008.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 214 | [ATT 4: CALFED, 2000. CALFED Bay-Delta Programmatic Record of Decision. August 28, 2000.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 215 | [ATT 5: CALFED, 2007. CALFED Water Quality Program Stage 1 Final Assessment. October 2007.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 216 | [ATT 6: California Department of Fish and Game, 2009. California Endangered Species Act Incidental Take Permit No. 2081-2009-013-03. Contra Costa Water District Maintenance and Operation of the Los Vaqueros Project and Alternative Intake Project. November 9, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |

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| 1563 | 217 | [ATT 7: California Farm Bureau Federation, 2010. Comments on Bay Delta Conservation Plan: January 29, 2010 Decisions Regarding Near- and Long-term Operations. Letter to Under Secretary Karen Scarborough, Natural Resources Agency. January 28, 2010.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 218 | [ATT 8: California Natural Resources Agency, 2013. Portfolio Approach to Statewide Management and the Bay Delta Conservation Plan in a Letter to San Diego County Water Authority. September 11, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 219 | [ATT 9: CCWD, 1988. Resolution No. 88-45, A Resolution of the Board of Directors of Contra Costa Water District Affirming the Contra Costa Water District's Goals and Objectives for the Los Vaqueros Reservoir Project. August 1988.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 220 | [ATT 10: CCWD, 2009a. BDCP Operational Parameters and Effects Analysis, Follow-up to September 10, 2009, Steering Committee Meeting. Letter to BDCP Steering Committee. September 16, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 221 | [ATT 11: CCWD, 2009b. Comments on the Revised Notice of Preparation (February 13, 2009) of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Bay Delta Conservation Plan (BDCP). May 14, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 222 | [ATT 12: CCWD, 2010. Historical Fresh Water and Salinity Conditions in the Western Sacramento-San Joaquin Delta and Suisun Bay: A summary of historical reviews, reports, analyses and measurements. Water Resources Department. Technical Memorandum WR10-001. February 2010.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 223 | [ATT 13: CCWD and DWR, 1967. Agreement. April 21, 1967.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 224 | [ATT 14: CCWD and Reclamation, 2006. Draft Environmental Impact Report/Environmental Impact Statement for the Contra Costa Water District Alternative Intake Project, State Clearinghouse # 2005012101. Contra Costa Water District and U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region, May 2006.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 225 | [ATT 15: Chorus, I., I.R. Falconer. H.J. Salas, J. Bartram. 2000. "Health risks caused by freshwater cyanobacteria in recreational waters." Journal of Toxicology and Environmental Health Part B: Critical Reviews, 3(4):323-347, doi: 10.1080/109374000436364.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 226 | [ATT 16: DESY, 2011. "Tunnel Construction for the European XFEL. News about the subsidence above the tunnel of 2 July 2011." Accessed July 11, 2014. http://www.desy.de/news/subsidence/index_eng.html] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |

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| 1563 | 227 | [ATT 17: DWR, 2007. Sources of Salinity in the South Sacramento-San Joaquin Delta. Memo Report to Dean F. Messer, Chief, Environmental Assessment Branch, from Barry L. Montoya, Staff Environmental Scientist, Department of Water Resources. May 30, 2007.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 228 | [ATT 18: DWR, 2009a. An Overview of the Draft Conservation Strategy for the Bay Delta Conservation Plan. Department of Water Resources. January 12, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 229 | [ATT 19: DWR, 2009b. Jones Tract Flood Water Quality Investigations. Municipal Water Quality Investigations Program, Division of Environmental Services, Department of Water Resources. July 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 230 | [ATT 20: DWR, 2010. Comments on the Sacramento Regional County Sanitation District's tentative National Pollutant Discharge Elimination System Permit Renewal for the Sacramento Regional Wastewater Treatment Plant. Letter to Kathy Harder, Central Valley Regional Water Quality Control Board from Gerald E. Johns, Department of Water Resources. October 1, 2010.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 231 | [ATT 21: DWR, 2013a. CCWD Water Quality Analysis. Presented to CCWD, February 15, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 232 | [ATT 22: DWR, 2013b. Modeling files from CalSim II, DSM2, and SRWQM developed as the basis for the BDCP Draft EIR/EIS for the Existing Conditions with Fall X2, No Action Alternative with Fall X2, and Alternatives 1 through 9. Provided by Department of Water Resources to CCWD on an external hard drive on March 28, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 233 | [ATT 23: DWR, 2014a. "Clifton Court Forebay Diversions/8500." Accessed June 19, 2014. Available at http://baydeltaoffice.water.ca.gov/sdb/sdip/features/ccf_diversions.cfm .] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 234 | [ATT 24: DWR, 2014b. Monthly reservoir storage at San Luis Reservoir. California Data Exchange Center, Department of Water Resources. Accessed June 11, 2014. http://cdec.water.ca.gov/cgi-progs/selectQuery?station_id=SNL] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 235 | [ATT 25: DWR, 2014c. Monthly reservoir storage at Shasta Dam. California Data Exchange Center, Department of Water Resources. Accessed June 11, 2014. http://cdec.water.ca.gov/cgi-progs/selectQuery?station_id=SHA] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 236 | [ATT 26: DWR, 2014d. "Water Use Efficiency." Accessed June 24, 2014. http://www.water.ca.gov/wateruseefficiency/] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | | responses to comments. |
| 1563 | 237 | [ATT 27: Federal Register, 2009. Drinking Water Contaminant Candidate List 3 - Final. Volume 74, Number 194. October 8, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 238 | [ATT 28: Fischer, H.B., E.J. List, R.C.Y. Koh, J. Imberger, and N.H. Brooks, 1979. Mixing in inland and coastal waters. Academic Press, San Diego.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 239 | [ATT 29: Ingebritsen, S.E. and M.E. Ikehara, 1999. "Sacramento-San Joaquin Delta: The sinking heart of the state." In Land Subsidence in the United States. U.S. Geological Survey Circular 1182:83-94.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 240 | [ATT 30: Kalbitz, K. and S. Geyer. 2002. "Different effects of peat degradation on dissolved organic carbon and nitrogen." Organic Geochemistry, 33:319-326.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 241 | [ATT 31: Kegel, F.R., 1979. "Farming Organic Soils of the Delta." California Agriculture 33:11. November-December 1979. doi: 10.3733/ca.v033n11p6.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 242 | [ATT 32: Korth, W., J. Ellis, K. Bowmer, 1992. "The Stability of Geosmin and MIB and their deuterated analogues in Surface Waters and Organic Solvents," Water Science and Technology, 25, no. 2, 115-122.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 243 | [ATT 33: Lee, W., P. Westerhoff, J.P. Croue, 2007. "Dissolved Organic Nitrogen as a precursor for chloroform, Dichloroacetonitrile, N-Nitrosodimethylamine, and Trichloronitromethane." Environmental Science and Technology 41, no. 15, 5485-5490. doi: 10.1021/es070411g.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 244 | [ATT 34: Lehman, P. W., G. Boyer, M. Satchwell, S. Waller, 2008. "The influence of environmental conditions on the seasonal variation of Microcystis cell density and microcystins concentration in San Francisco Estuary." Hydrobiologia, 600(1):187-204. doi: 10.1007/s10750-007-9231-x.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 245 | [ATT 35: Lehman, P.W., K. Marr, G.L. Boyer, S. Acuna, S.J. The, 2013. "Long-term trends and causal factors associated with Microcystis abundance and toxicity in San Francisco Estuary and implications for climate change impacts." Hydrobiologia, 718(1):141-158. doi: 10.1007/s10750-013-1612-8.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 246 | [ATT 36: Linville, R. G., Luoma, S. N., Cutter, L., Cutter, G. A., 2002. "Increased selenium threat as a result of invasion of the exotic bivalve Potamocorbula amurensis into the San Francisco Bay-Delta." Aquatic Toxicology, 57(1), 51-64. doi: | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | 10.1016/S0166-445X(01)00265-X.] | responses to comments. |
| 1563 | 247 | [ATT 37: MacWilliams, M., A. Bever, N. Hume, E. Loboschefskey, S. Siegel, 2014. "Evaluation of the Effects of Prospect Island Restoration on Sediment Transport and Turbidity." Presented at the annual meeting of the California Water Environmental Modeling Forum, Sacramento, California. February 26, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 248 | [ATT 38.1: Report on Review of Bay Delta Conservation Program Modeling, MBK Engineers and Dan Steiner, 6/20/2014. See also BDCP1722-ATT 1, BDCP1633-ATT 1, BDCP1597-ATT 6.1, BDCP1674-ATT 3.1.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 249 | [ATT 38.2: Technical Appendix to Review of Bay Delta Conservation Program Modeling, by MBK Engineers and Daniel B. Steiner (Consulting Engineer). See also BDCP1722-ATT 2, BDCP1633-ATT 2, BDCP1597-ATT 6.2, BDCP1674-ATT 3.2.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 250 | [ATT 39: Metropolitan Water District of Southern California, 2014a. Conservation Program Website "BeWaterWise.com". Accessed July 16, 2014. http://www.bewaterwise.com/] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 251 | [ATT 40: Metropolitan Water District of Southern California, 2014b. Southern California Water World Forum. Accessed July 16, 2014. http://www.mwdh2o.com/mwdh2o/pages/education/world_water_01.html] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 252 | [ATT 41: Mitch, W., A.C. Gercke, D.L. Sedlak, 2003. "A N-Nitrosodimethylamine (NOMA) precursor analysis for chlorination of water and wastewater." Water Research, (37):3733-3741. doi: 10.1016/S0043-1354(03)00289-6] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 253 | [ATT 42: Monsen, N.E., J.E. Cloern, L.V. Lucas, and S.G. Monismith, S. G., 2002. "A comment on the use of flushing time, residence time, and age as transport time scales." Limnology and Oceanography. 47(5), 1545-1553.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 254 | [ATT 43: NMFS, 1993. National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) Biological Opinion on Winter-run Chinook Salmon for the Los Vaqueros Project. March 18, 1993.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 255 | [ATT 44: NMFS, 2009. Biological and Conference Opinion on the Long Term Central Valley Project (CVP) and State Water Project (SW P) Operations Criteria and Plan (OCAP) Operations. No. 2008/09022. National Marine Fisheries Service, Southwest Region. June 4, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 256 | [ATT 45: NRDC, 2013a. "Benefits of a Diversified Portfolio Approach to the Bay-Delta and Water Supply."] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | | responses to comments. |
| 1563 | 257 | [ATT 46: NRDC, 2013b. "Growing Support for Analysis of Bay-Delta Conceptual Alternative." Natural Resources Defense Council Staff Blog by Doug Obegi. Accessed June, 24, 2014. http://switchboard.nrdc.org/blogs/dobegi/growing_support_for_analysis_o.html] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 258 | [ATT 47: Office of Environmental Health Hazard Assessment, 2009. Microcystis: Toxic Blue-Green Algae. February 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 259 | [ATT 48: Paerl, H.W., 1996. "A comparison of cyanobacterial bloom dynamics in freshwater, estuarine and marine environments." Phycologia, 35(6S):25-35. doi: 10.2216/i0031-8884-35-6S-25.1.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 260 | [ATT 49: Parker, A., C. Simenstad, T.L. George, N. Monsen, T. Parker, G. Ruggerone, J. Skalski, 2014. "Delta Science Program Independent Review Panel Report. BDCP Effects Analysis Review, Phase 3." March 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 261 | [ATT 50: Persson, P. E., 1980. "Sensory properties and analysis of two muddy odour compounds, geosmin and 2-methylisoborneol, in water and fish." Water Research, 14(8), 1113-1118.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 262 | [ATT 51: Presser, T.S. and S.N. Luoma, 2013. "Ecosystem-scale Selenium Model for the San Francisco Bay-Delta Regional Ecosystem Restoration Implementation Plan." San Francisco Estuary and Watershed Science. 11(1).] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 263 | [ATT 52: Reclamation, 2013a. "Reclamation's List of Key BDCP Adm. Draft EIR/EIS Issues. July 5, 2013. Clarification Added: July 16, 2013" in Federal Agency Comments Received on the Bay Delta Conservation Plan (BDCP) Second Administrative Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS). July 18, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 264 | [ATT 53: Reclamation, 2013b. San Luis Reservoir Expansion Draft Appraisal Report. U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region - Planning Division. December 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 265 | [ATT 54: Reclamation, 2014. U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region. Central Valley Operation. Water Operations Analysis. "50% Forecast." May 23, 2014. Accessed June 11, 2014. http://www.usbr.gov/mp/cvo/data/May50.pdf] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 266 | [ATT 55: Reclamation and DWR, 1986. "Agreement between the United States of America and the Department of Water Resources of the State of California for Coordinated Operation of the Central Valley Project and the State Water Project." November 24, | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | 1986.] | responses to comments. |
| 1563 | 267 | [ATT 56: Reclamation and DWR, 2013. North-of-the-Delta Offstream Storage Investigation 2013 Progress Report. December 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 268 | [ATT 57: Reclamation and SCVWD, circa 2008. San Luis Low Point Improvement Project. U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region and Santa Clara Valley Water District.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 269 | [ATT 58: Reclamation, USFWS, and CDFG, 2011. Final Environmental Impact Statement/Environmental Impact Report for the Suisun Marsh Habitat Management, Preservation, and Restoration Plan. State Clearinghouse 2003112039. November 2011.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 270 | [ATT 59: Reddy, K.R., 2005. Review of Delta Wetlands Water Quality: Release and Generation of Dissolved Organic Carbon from Flooded Peatlands (Final Report). March 2005.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 271 | [ATT 60: RMA, 2010. "Potential Impacts of Large-Scale Delta Levee Failure on BDCP Restoration and Intake Investments. RMA Model Analysis." Presented to BDCP Steering Committee on July 29, 2010. Available at http://baydeltaconservationplan.com/Library/ArchivedDocument/SteeringCommittee/SteeringCommitteeAgendasAndHandouts.aspx] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 272 | [ATT 61: RMA, 2013. "Recent Projects Modeling Local and Regional Impacts of Tidal Marsh Restoration." Presented to the Delta Independent Science Board on January 17, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. |
| 1563 | 273 | [ATT 62: Semitropic Water Storage District, 2011. Delta Wetlands Project Place of Use Final Environmental Impact Report. August 2011.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 274 | [ATT 63: Sereno, D.M. and M.T. Stacey, 2004. "Hydrodynamics in Franks Tract - Observations and Modeling Influence of Submerged Aquatic Vegetation (SAV)." Presented at the CALFED Bay-Delta Science Conference. October 2004.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 275 | [ATT 64: Sereno, D., M.T. Stacey, S. Baek, J.R. Burau, J.I. Cuetara, C.A. Ruhl, R.L. Dinehart, and J.E. George, 2003. "Using Hydrodynamics to Examine Differences in Flooded Island Environments. Lessons Learned, Questions Raised." Presented at CALFED Ecosystem | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | Restoration Program Seminar. April 2003.] | responses to comments. |
| 1563 | 276 | [ATT 65: State Water Project Contractors Authority and DWR, 2012. California State Water Project SWP Watershed Sanitary Survey. 2011 Update. June 2012.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 277 | [ATT 66: SWRCB, 1968. "Statement of policy with respect to maintaining high quality of waters in California." State Water Resources Control Board Resolution No. 68-16.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 278 | [ATT 67: SWRCB, 2004. "In the Matter of the Approval of the Water Quality Response Plan Under SWRCB Decision 1641." State Water Resources Control Board Order WRO 2004-0043-EXEC.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 279 | [ATT 68: SWRCB, 2010. Permit for Diversion and Use of Water. Amended Permit 20749. Application 20245 of Contra Costa Water District. July 8, 2010.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 280 | [ATT 69: SWRCB, 2013. Comments on the Second Administrative Draft Environmental Impact Report/Environmental Impact Statement for the Bay Delta Conservation Plan. Letter to Mr. Russell Stein, California Department of Water Resources. 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 281 | [ATT 70: The Bay Institute, NRDC, Planning and Conservation League, Environmental Entrepreneurs, Defenders of Wildlife, Contra Costa Council, 2013c. "New Plan Offers an Effective, Affordable Package of California Water Supply and Bay-Delta Fisheries Solutions." Press Release. January 16, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 282 | [ATT 71: Trojan Technologies, 2010. Trojan UV Factsheet: Taste and Odor - Environmental Contaminant Treatment, London, Ontario, Canada.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 283 | [ATT 72: USEPA, 1998. Empirically Based Models for Predicting Chlorination and Ozonation By-Products: Trihalomethanes, Haloacetic Acids, Chloral Hydrate, and Bromate. EPA 815-R-98-005. August 1998.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 284 | [ATT 73: USEPA, 2011. "Water Quality Challenges in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary." Unabridged Advance Notice of Proposed Rulemaking. February 2011.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 285 | [ATT 74: USEPA, 2012. "Water Quality Challenges in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary." EPA's Action Plan. August 2012.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | | responses to comments. |
| 1563 | 286 | [ATT 75: USEPA, 2013a. "Basic information about disinfection byproducts in drinking water: Total Trihalomethanes, Haloacetic Acids, Bromate, and Chlorite." Website last updated December 31, 2013. http://water.epa.gov/drink/contaminants/basicinformation/disinfectionbyproducts.cfm] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 287 | [ATT 76: USEPA, 2013b. "Bromate (CASRN 15541-45-4)." United States Environmental Protection Agency. (2013b) Integrated Risk Information System. January 24, 2013. Available at http://www.epa.gov/iris/subst/1002.htm] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 288 | [ATT 77: USEPA, 2013c. "N-Nitrosodimethylamine (CASRN 62-75-9)". United States Environmental Protection Agency. Integrated Risk Information System. January 24, 2013. Available at http://www.epa.gov/iris/subst/0045.htm] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 289 | [ATT 78: USFWS, 1993. Formal Endangered Species Consultation on Effects of the Proposed Los Vaqueros Reservoir Project on San Joaquin kit fox and Bald eagle, Contra Costa County, California. U.S. Department of the Interior, Fish and Wildlife Service, Sacramento, California. File No 1-1-92-F-48, 1993.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 290 | [ATT 79: USFWS, 2000. Formal ESA Consultation for CCWD's Construction of a Multipurpose Pipeline and Future Water Supply Implementation Program, No. 1-1-99-F-93. U.S. Fish and Wildlife Service. April 27, 2000.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 291 | [ATT 80: USFWS, 2005. Reinitiation and Amendment of Formal Consultation and Conference on CCWD's Future Water Supply Implementation Program (Service file no. 1-1-99-F-0093) for the Renewal of the Central Valley Project Long Term Water Service Contract, Contra Costa County, California. U.S. Fish and Wildlife Service. March 11, 2005.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 292 | [ATT 81: USFWS, 2008. Formal ESA Consultation for the Proposed Coordinated Operations of the CVP and SWP, No. 81420-2008-F-1481-5, U.S. Fish and Wildlife Service, December 15, 2008.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 293 | [ATT 82: USFWS, 2013a. U.S. Fish and Wildlife Service Staff BDCP Progress Assessment. April 3, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 294 | [ATT 83: USFWS, 2013b. "U.S. Fish and Wildlife Service Staff BDCP ADEIS Review" in Federal Agency Comments Received on The Bay Delta Conservation Plan (BDCP) Second Administrative Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS). July 18, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 295 | [ATT 84: Westlands Water District. 2013. "Bay Delta Conservation Plan & Delta Habitat Conservation & Conveyance Program." Presentation at Board Workshop. November 20, | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above |

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| | | 2013.] | responses to comments. |
| 1563 | 296 | [ATT 85: Zhang, J., J. Yu, W. An, J. Liu, Y. Wang, Y. Chen, J. Tai, M. Yang, 2011, "Characterization of Disinfection Byproduct Formation Potential in 13 Source Water in China." Journal of Environmental Sciences, 23(2):183-188. doi: 10.1016/S1001-0742(10)60440-8] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 297 | [ATT 86: Zippin, D., E. Berryman, C. Chilmakuri, M. Greenwood, R. Wilder. J. Pierre. "Bay Delta Conservation Plan Effects Analysis Review - Phase 3." Presented to the Delta Science Program Independent Science Review Panel. January 28, 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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 298 | [ATT 1: Letter dated January 16, 2013 to U.S. Department of Interior and California Natural Resources Agency regarding A Portfolio-Based BDCP Conceptual Alternative. From Alameda County Water District, City of San Diego, Contra Costa Water District, East Bay Municipal Utility District, San Diego County Water Authority, San Francisco Public Utilities Commission, and Otay Water District.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 299 | [From ATT 1:] We (Contra Costa Water District) are writing to you in advance of the planned release of the public review draft of the Bay Delta Conservation Plan (BDCP), out of a deep concern over the status of this effort. We are united in a desire for a successful project that can be supported by project proponents, Delta stakeholders, and the public. That chance for success is substantially diminished as a result of the alternatives analysis that we have seen thus far. Up to now, the BDCP process has been strongly focused on advancing a large capacity conveyance which, along with the suite of associated conservation measures, will be burdened with large uncertainties and for which a solid business case has not yet been made. These unquantified risks include impacts on listed species, impacts on the Delta landform, hydrology and water quality, open-ended costs to direct water users and to the public, political controversy, and potentially lengthy litigation. | It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Please see Master Response 4 related to development of the alternatives. |
| 1563 | 300 | [From ATT 1:] Absent so far has been a portfolio-based alternative that features a smaller conveyance facility with additional, complementary investments in local water supply sources, regional coordination, south of Delta storage, levee improvements, and habitat restoration as advanced in the coalition letter sent by other organizations today. We believe that it is critical to evaluate in detail a conveyance as small as 3,000 cubic feet per second, as it would provide considerable water supply benefits to the export community while better protecting broader interests in the Delta. Such a facility would also realize significant financial savings in comparison with a larger conveyance facility, face fewer legal and political challenges, and potentially be completed sooner. With accompanying investments in proven, cost-effective regional water strategies, this approach could increase export area water supplies and reduce the vulnerability of water supplies and Delta infrastructure to disruption from earthquakes and other disasters. We urge that this conceptual alternative be seriously considered in the BDCP process, including the required CEQA/NEPA analyses and the Clean Water Act Section 404 alternatives analysis. A portfolio approach could produce superior benefits at a similar or lower cost to water | This comment addresses Alternative 4 (known also as the BDCP) presented in the 2013 Draft EIR/EIS. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) has been evaluated in addition to Alternatives 2D and 5A in the RDEIR/SDEIS and the Final EIR/EIS. For detailed responses on the primary issues being raised with regard to the BDCP, as well as a discussion of the current status of the draft BDCP Effects Analysis, please see Master Response 5. The alternatives included in the EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A 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. As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS).. |

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| | | <p>users and the public, and at reduced levels of environmental impacts. It has the potential to be consistent with the best available science and, as a result, may be more readily permittable and capable of delivering benefits more rapidly. It would appear that a solid business case can be made for such an alternative; in any event, the business case must be made before any project proceeds.</p> <p>We fully appreciate the magnitude of the challenges facing the Delta, and urge a comprehensive solution that is both affordable and science-based. We recognize the enormous effort you have undertaken toward this end and hope that this conceptual alternative will continue to advance the discussion.</p> | <p>Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>Please see Section 1.C.3 of Appendix 1C, Demand Management Measures. Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the Proposed Project.</p> |
| 1563 | 301 | <p>[From ATT 1:]</p> <p>A Portfolio-Based BDCP Conceptual Alternative:</p> <p>The components described below represent a conceptual alternative, not a proposed BDCP project. The analysis of this alternative is intended to assist BDCP in developing the most cost-effective and environmentally beneficial final BDCP project that can be implemented and produce benefits rapidly. Variations on the approaches below should be analyzed as well, including a full range of conveyance capacities.</p> <p>Guiding Principle --</p> <p>Science-Based Ecosystem Management: Credible, proven science will determine ecosystem improvements and water management, using on-the-ground results as the central driver of decision-making.</p> | <p>The Draft EIR/EIS evaluates 15 action alternatives and a no action alternative, while the RDEIR/SDEIS evaluates an addition 3 action alternatives. The action alternatives were developed over a 9-year period in collaboration with state and federal agencies, public water agencies, nongovernmental organizations, agricultural interests and the general public using a multi-step screening process. More information regarding the alternatives screening process and how the alternatives selected meet the Delta Reform Act and CEQA and NEPA requirements is provided in Chapter 3 of the EIR/EIS and Master Response 4.</p> <p>The Proposed Project is rooted in the best available science and has incorporated input from multiple independent scientific reviews. Through the proposed adaptive management program, science, research and monitoring will continue to guide the implementation of the proposed project in responding to the dynamic nature of the Delta environment.</p> |
| 1563 | 302 | <p>[From ATT 1:]</p> <p>A Portfolio-Based BDCP Conceptual Alternative:</p> <p>The components described below represent a conceptual alternative, not a proposed BDCP project. The analysis of this alternative is intended to assist BDCP in developing the most cost-effective and environmentally beneficial final BDCP project that can be implemented and produce benefits rapidly. Variations on the approaches below should be analyzed as well, including a full range of conveyance capacities.</p> <p>Guiding Principle --</p> <p>Water Supply Reliability: The BDCP can contribute to improved water supply reliability by reducing the physical vulnerability of Delta water supplies and embracing a portfolio approach that recognizes that water suppliers and the public have a broad range of options both in and outside of the Delta to meet their water needs and improve reliability.</p> | <p>Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the Project.</p> |
| 1563 | 303 | <p>[From ATT 1:]</p> <p>A Portfolio-Based BDCP Conceptual Alternative:</p> <p>The components described below represent a conceptual alternative, not a proposed</p> | <p>The alternatives included in the EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. 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</p> |

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| | | <p>BDCP project. The analysis of this alternative is intended to assist BDCP in developing the most cost-effective and environmentally beneficial final BDCP project that can be implemented and produce benefits rapidly. Variations on the approaches below should be analyzed as well, including a full range of conveyance capacities.</p> <p>Guiding Principle --</p> <p>A Strong Business Case: A strong business case is central to the success and financial viability of the BDCP. Sound economic principles and cost-benefit analysis must inform water supply improvements so that water ratepayers understand that the benefits they will receive from the project are reasonably proportional to what they are being asked to pay.</p> | <p>require actions that are beyond the scope of the proposed project. Please see Master Response 4.</p> <p>Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the Project.</p> |
| 1563 | 304 | <p>[From ATT 1:]</p> <p>A Portfolio-Based BDCP Conceptual Alternative:</p> <p>The components described below represent a conceptual alternative, not a proposed BDCP project. The analysis of this alternative is intended to assist BDCP in developing the most cost-effective and environmentally beneficial final BDCP project that can be implemented and produce benefits rapidly. Variations on the approaches below should be analyzed as well, including a full range of conveyance capacities.</p> <p>Guiding Principle --</p> <p>Water Quality: Delta water quality will be strongly influenced by the final BDCP plan, with potential impacts and benefits to export water users, local municipalities, Delta residents, Delta farmers and the ecosystem.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Alternative 4A also includes different operational assumptions than the action alternatives evaluated in the Draft EIR/EIS based upon input from State and Federal agencies. Please see Master Response 4 related to development of the alternatives.</p> <p>The alternatives included in the EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. 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. Please see Master Response 4.</p> |
| 1563 | 305 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>New Conveyance Facility: Focus BDCP analysis on one 3,000 cubic feet per second (cfs) North Delta intake facility and a single tunnel sized for 3,000 cfs gravity flow. This smaller facility would lower BDCP costs, improve reliability and reduce opposition. If implementation proves successful in meeting biological goals and objectives, a second phase could be constructed subsequently, but would not be permitted at this time.</p> | <p>The EIR/EIS alternatives included Alternative 5 with conveyance capacity from the north Delta intakes of 3,000 cfs based upon comments and proposals submitted during the development of the EIR/EIS, including the Portfolio Alternatives.</p> |
| 1563 | 306 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Project Operations: Analyze, as a starting point for analysis of future SWP and CVP operations, the best science available today. In particular, analyze the operations</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are</p> |

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| | | <p>proposal developed by state and federal biologists to conserve and manage a full range of covered Delta fish species, including consideration of the need to protect upstream fisheries resources. [Footnote 1: The work of state and federal agency biologists to produce a science-based operational scenario is summarized on pages 1-16 of this BDCP presentation -- http://www.essexpartnership.com/wp-content/uploads/2012/11/BDCP_CS5_Update_NG_O-Meeting_11_14_12v3.pdf] Project operations should utilize a "big gulp, little sip" approach that increases exports in wet years -- when water is available in excess of environmental needs -- and reduces diversions in average and drier years, particularly during key periods such as the spring and fall. Such an operations proposal has been developed over the past year by state and federal fish agency biologists. This is an important agency analysis that should be subjected to additional refinement in an open, transparent process, utilizing independent external peer reviewers. It is essential not to delay a detailed analysis of the likely yield of a new facility based on the best available science.</p> <p>Estimated Water Exports: ~ 4-4.3 million acre-feet/year (2025). This is an initial estimate of average exports. BDCP has not yet modeled a 3,000 cfs facility with additional South of Delta storage and the agency-developed operational scenario included in this proposal.</p> | <p>being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Alternative 4A also includes different operational assumptions than the action alternatives evaluated in the Draft EIR/EIS based upon input from State and Federal agencies. Please see Master Response 4 related to development of the alternatives.</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. The alternatives included in the EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. 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 EIR/EIS alternatives included Alternative 5 with conveyance capacity from the north Delta intakes of 3,000 cfs based upon comments and proposals submitted during the development of the EIR/EIS, including the Portfolio Alternatives.</p> |
| 1563 | 307 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Reduced Reliance on the Delta through Investments in South of Delta Water Supplies: DWR, many Urban Water Management Plans and other analyses have concluded that local water supply tools including conservation, water recycling, and other approaches, can provide reliable, sustainable and plentiful new sources of supply that will also be cost-effective over the long run. These sources can also be provided rapidly through additional investments. There is approximately as much new water available from these new water supply sources as is currently exported from the Delta.</p> <p>This conceptual alternative proposes a smaller capital investment in a Delta facility, in comparison with the current BDCP preliminary project, and investment of savings in local water supply projects. For analytical purposes, this alternative includes a \$2 billion investment in water recycling (at a capital cost of approximately \$6,430 - 6,470 per acre-foot (AF) of permanent water recycling capacity) and a \$3 billion investment in urban conservation (at an initial/capital cost of \$3,230 - 4,860 per AF). [Footnote 2: See attachment for additional detail regarding cost and yield estimates. Note that these are initial/capital costs, not annual per-acre-foot unit costs. A comprehensive BDCP analysis should also address operations and maintenance costs of a full range of alternative investments.] Urban stormwater capture, groundwater cleanup, and conjunctive use should be included as cost-effective methods for generating future new sources of water, and would also be important elements of a large-scale effort to invest in new local water sources. Additional cost-effective savings can also be obtained from investments in agricultural conservation. [Footnote 3: The Department of Water Resources Bulletin 160-2009. http://www.waterplan.water.ca.gov/cwpu2009/index.cfm (Volume 2, Chapter 2, page 2-13) states that agricultural water conservation costs range from \$35-\$900 per AF. Because of the width of this cost range, agricultural conservation is not included in the</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Alternative 4A also includes different operational assumptions than the action alternatives evaluated in the Draft EIR/EIS based upon input from State and Federal agencies.</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. The alternatives included in the EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. 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>Please see Master Response 6 (Demand Management), Master Response 7 (Desalination), and Master Response 37 (Storage) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the Project.</p> |

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| | | <p>conceptual cost and yield numbers above. A final BDCP portfolio proposal should, however, include agricultural water use efficiency investments.]</p> <p>Estimated Yield: 926,000-1,245,000 acre-feet of permanent water supply. (309,000-311,000 acre-feet from water recycling and 617,000 - 934,000 acre-feet from urban efficiency.)</p> | <p>The tunnels are a component of the overall water conveyance system, and their size and capacity is closely tied to the overall operating permits and the capacity of the intakes and the pumping plants at Clifton Court under Alternative 4A. As a complete system, the water conveyance facilities are designed to move up to 9,000 cfs.</p> <p>As described in Appendix 3A of the EIR/EIS, the action alternatives were developed in a manner to both improve consistency of SWP and CVP water supply reliability and to modify SWP and CVP water facilities operations to improve ecosystem habitat, especially for state and federally listed species. 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 action alternatives were developed to deliver SWP and CVP water in accordance with SWP and CVP contracts, with the understanding that full contract amounts would not be delivered on average for the alternatives considered in the BDCP EIR/EIS. Please see Master Response 4.</p> |
| 1563 | 308 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Improved Water Agency Integration: The principles of integrated regional water management planning should form the foundation for improving cooperation and integration among Bay Area, Central Valley, and Southern California water agencies to provide improved water supply reliability and quality benefits. Increasing integration and cooperation among these agencies could produce substantial potential benefits and cost-savings. For example, more than a dozen significant water agencies serve the Bay Area. Improved physical connections and increased cooperation among these agencies could reduce risks related to earthquakes and localized drought conditions, facilitate wastewater recycling, and utilize existing infrastructure more efficiently.</p> <p>In Southern California, additional benefits could be obtained, for example, by facilitating water management agreements and programs among agencies with the potential to construct water recycling facilities and agencies that have groundwater storage resources. The Metropolitan Water District could operate its system to facilitate innovative and cost-effective water management programs between agencies in Southern California and elsewhere in the state. Southern California groundwater agencies could allow water from Southern California surface storage facilities to be managed conjunctively with regional groundwater storage facilities. This could, in essence, create new surface storage capacity at the far lower cost associated with groundwater storage. This approach could help take advantage of the supplies available during “big gulp” opportunities in the Delta. Similar potential benefits may exist through increased integration and cooperation in the agricultural sector.</p> <p>In all of these opportunities it is imperative that program costs be clearly identified and allocated to the water suppliers that benefit. In this way, each public water supplier is able to account to the public it serves that their water ratepayer dollars are being spent wisely, according to law and in a manner that provides clear benefits.</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>As described in Appendix 3A, the “Portfolio-Based Proposal,” viewed as an entire “portfolio” package, does not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> |
| 1563 | 309 | [From ATT 1:] | The action alternatives do not include facilities to increase surface water or groundwater storage. Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta |

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| | | <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>New South of Delta Surface and/or Groundwater Storage: Include up to 1 million acre-feet (MAF) [Footnote 4: This 1 MAF storage target is based on limited BDCP modeling and may be revised based on further analysis.] of new South of Delta storage, with funding allocated through competitive bidding to evaluate proposed surface, groundwater and conjunctive use projects. Investments should be focused on projects that can be completed quickly and that are most cost-effective. Additional South of Delta storage [Footnote 5: As used in this proposal, South of Delta storage is defined as storage integrated into the existing SWP and CVP Delta export system, including surface and groundwater storage in the Bay Area, the west side of the San Joaquin Valley, Kern County and Southern California. It includes storage controlled by the CVP, the SWP, MWD, Kern County Water Agency and other regional and local agencies.] can allow for greater water exports in wetter years. Surface storage south of the Delta could be used conjunctively with groundwater facilities to store wet-year exports for future dry years. This increase in storage capacity must be accompanied by new Delta operations that ensure that the new storage will be operated to implement "big gulp, little sip" operations.</p> | <p>or elsewhere, was not included in the EIR/EIS.</p> |
| 1563 | 310 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Levee Improvements: Improve existing levees and build setback levees as part of habitat restoration. A \$1 billion additional investment could improve Delta levees to protect life, property, and important infrastructure, and also upgrade key levees including the eight western Delta islands to a higher standard with improved stability and resilience in the face of seismic risk. Upgrading these key levees would provide significant water reliability benefits and would be an appropriate use of exporter funds.</p> <p>Regardless of the size of a Delta facility, maintaining and improving Delta levees is critical to ensuring the physical reliability of Delta exports. Even with new conveyance, the CVP and SWP will continue to rely on water exports from the South Delta, particularly in drier years. With a 9,000 cfs facility, exports from the South Delta would constitute approximately 50 percent of total exports. In critically dry years, BDCP currently anticipates that 75 percent of total exports would be diverted from the South Delta. [Footnote 6: BDCP Draft Effects Analysis, April 13, 2012. Tables C.A-24 and C.A-27 from Appendix 5.C - Attachment C-A, which can be found on p. C.A. 83 and C.A. 92 at this link: http://baydeltaconservationplan.com/Libraries/Dynamic_Library/BDCP_Effects_Analysis_-_Appendix_5_C_Attachment_C_A_-_CALSIM_and_DSM2_Results_4-13-12.sflb.ashx] Therefore, the benefits of this proposed investment in levee improvements would be particularly significant in dry years. BDCP does not currently include a strategy to reduce the physical vulnerability of the portion of Delta exports that would continue to rely on the Delta levee system.</p> <p>East Bay Municipal Utility District, Contra Costa Water District and Delta landowners currently contribute to the maintenance of the levees upon which they rely. An analogous investment by export agencies would produce significant reliability benefits. For example, with average exports of 4 MAF/year, a contribution of \$8/AF would produce \$480 million to help improve Delta levees over the coming 15 years. Public funds for levee</p> | <p>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. Please see Appendix 6A of the Final EIR/EIS purpose and need, and for a discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the Project.</p> <p>As described in Chapter 2, Final EIR/EIS, the project objectives and purpose and need were used by the lead agencies to develop a reasonable range of alternatives to evaluate in the EIR/EIS. One of the alternatives, Alternative 9, would include levee improvements and strengthening on the through-Delta water conveyance corridor. Notably, although Alternative 9 would shore up levees at risk of failure following a major earthquake, Alternative 9 would only divert water in the north Delta at the existing Delta Cross Channel Gates and Georgiana Slough, and thus would not provide the operational flexibility, with attendant ecological benefits for Delta smelt and other species, that would exist with alternatives that do include north Delta diversions.</p> <p>Please see Final EIR/EIS, Appendix 6A – BDCP/California WaterFix Coordination with Flood Management Requirements.</p> |

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| | | improvements are appropriate to protect Delta residents and infrastructure of regional and state importance (e.g. highways). Additional local contributions may be required. | |
| 1563 | 311 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Delta Floodplain and Tidal Marsh Habitat Restoration: Implement a large scale, approximately 40,000 acre habitat restoration program to benefit Delta fish and wildlife species, to provide a broad range of ecosystem functions and to be integrated with Delta flood management improvements. There is strong scientific evidence that floodplain habitat restoration, combined with adequate flows, can benefit salmon and other species. However, agency "red flag" memos and the National Research Council review of the existing Biological Opinions concluded that floodplain restoration cannot substitute for required ecosystem flows. Restoration of tidal marsh habitat, also a desirable activity, nonetheless, has far greater uncertainty associated with it, regarding benefits for many covered species, in comparison with the likely benefits of floodplain restoration. Tidal marsh restoration should be included in the BDCP plan as a complement to flow augmentation and floodplain restoration, as it is more likely to benefit some covered fish species in combination with these elements. Habitat restoration, particularly tidal marsh restoration, should in any case be implemented within an adaptive management framework. Existing CVP and SWP mitigation responsibilities, as well as new mitigation responsibilities associated with a new Delta facility, will be paid for by water exporters, while public funding should be focused on conservation benefits that go beyond mitigation. This proposal is focused on the coming 15-20 years. Long-term restoration efforts are likely to require additional funding.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. It also should be noted that habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternatives 4A, 2D, and 5A. Restoration actions that are independent of Proposed Action, such as EcoRestore which includes many of the actions considered in the 2013 Draft EIR/EIS as Conservation Measures 2 through 21, will be evaluated in separate engineering and environmental documentation and are evaluated in the Final EIR/EIS as part of the cumulative impact analysis. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP.</p> |
| 1563 | 312 | <p>[From ATT 1:]</p> <p>Conceptual Elements of a Diversified Portfolio Approach:</p> <p>Integrating Science into Delta Management: Increase the integration of the best available science into all aspects of Delta and related resource management. The Delta is a complex and highly dynamic system. During the past decade, an expanded investment in science has improved our understanding of this ecosystem. With ongoing investments, that understanding will continue to improve. A long-term investment in science and a program to integrate new scientific results into ongoing management are essential to long-term success. Therefore, BDCP should include the following:</p> <ul style="list-style-type: none"> * External independent scientific review at critical points, with clear mechanisms to incorporate peer review results. * Quantified performance objectives, such as SMART [Footnote 7: SMART objectives are those that are specific, measurable, achievable, relevant to the goal and timebound.] biological objectives and criteria for ecosystem restoration and water operations. * Governance and adaptive management processes designed to ensure that goals and objectives are achieved, to obtain the best available science over time, and to ensure that scientific results are fully integrated into on-the-ground management. | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions using the best available science.</p> <p>Best available science will continue to be used as described in Chapter 3 and Appendix 3B of the EIR/EIS. Implementation of the Proposed Project will include an adaptive management and monitoring program in which monitoring information and research results will be used to assess uncertainties and modify operations to meet the overall project objectives, including environmental habitat objectives.. Please see Master Response 33. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP.</p> |

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| | | <p>* Carefully designed roles for the state and federal projects, as well as other stakeholders, to ensure a reliance on objective science.</p> <p>This science-based approach is not anticipated to result in large increases in project costs. In fact, this approach would increase the cost-effectiveness of BDCP efforts, and should result in savings.</p> | |
| 1563 | 313 | <p>[From ATT 1:]</p> <p>Affording, and Paying for the Portfolio-Based Conceptual Alternative:</p> <p>Contra Costa Water District organizations strongly support an analytically-based beneficiary pays approach to BDCP financing. Contra Costa Water District believes that the analysis of this portfolio approach will assist BDCP in developing detailed cost allocations and in attracting additional funding partners. It will also help reduce pressure for public funds and ensure that such funds are spent effectively and appropriately.</p> <p>Preliminary cost estimates indicate that this conceptual alternative is less expensive than the current preliminary preferred BDCP project. In addition, some of the investments in this portfolio alternative, such as levee and local water supply investments, are likely to be necessary even with a large Delta facility. Therefore, the actual cost difference between these two different approaches may be larger than indicated here.</p> <p>This conceptual alternative is more financially viable than the preliminary preferred 9,000 cubic feet per second (cfs) Delta facility project. That project, pegged at \$14 billion or more, is proposed to be paid for by water exporters. Proposed habitat restoration could cost up to an additional \$4 billion, raising the total capital cost of the current approach to approximately \$18 billion. By reducing the size of the project to a 3,000 cfs, single-bore facility, many billions of dollars can be freed up to invest in more local supply development and the water exporter shares of the other conceptual alternative components.</p> <p>The water code requires water users to pay for a new Delta facility. [Footnote 8: California Water Code Section 85089.] The public share of this conceptual alternative could be funded in part by a reduced water bond. The increased benefits and reduced cost of this approach can assist BDCP in attracting increased funding from beneficiaries, reducing the pressure on the water bond. We believe that the diversified portfolio approach in this conceptual alternative could assist in the effort to develop a broadly supported and effective new water bond.</p> | <p>The project was developed and will be funded by the proponents and beneficiaries of the Project.</p> <p>Please see Master Response 5 related to status of BDCP and project funding.</p> |
| 1563 | 314 | <p>[ATT1: att1 -- Table of Estimated Cost Summary for a Portfolio-Based BDCP Conceptual Alternative.]</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 the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments.</p> |
| 1563 | 315 | <p>[From ATT 1:]</p> <p>Total Conceptual Alternative Water Supply Benefits:</p> <p>~ 4.9-5.5 million acre-feet per year (MAF/Y)</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>As described in Appendix 3A, the "Portfolio-Based Proposal," viewed as an entire "portfolio" package, does</p> |

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| | | <p>Delta exports: ~ 4-4.3 MAF/Y.</p> <p>New South of Delta sources: ~ .93-1.2 MAF/Y</p> | <p>not qualify as an EIR/EIS alternative, as its scope is far greater than can be achieved through a Delta-focused alternative, as defined by the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/EIS). Additionally, many regional and local water agencies favor local water management control, as the entities active within each region/locale are best suited to plan and manage long-term water supplies in light of growth planned by cities and counties for their areas.</p> <p>For more information regarding alternatives to the proposed project please see Master Response 4.</p> <p>For more information regarding funding of the proposed project please see Master Response 5.</p> |
| 1563 | 316 | [ATT 10: Letter from Contra Costa Water District (CCWD) to BDCP Steering Committee dated September 16, 2009 regarding BDCP Operational Parameters and Effects Analysis Follow-up to September 10, 2009, Steering Committee Meeting.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 317 | <p>[From ATT 10:]</p> <p>Contra Costa Water District (CCWD) would like to take this opportunity to offer comments on the BDCP operational parameters and effects analysis, as presented in the September 10, 2009 Steering Committee meeting. We have this area of concern, as follows:</p> <p>Evaluation and verification of modeling tools:</p> <p>Models used for operations, hydrodynamics, and water quality have been extensively modified for BDCP studies. Before model results are relied upon to guide important BDCP decisions, the modified models must be carefully evaluated and verified. Furthermore, to provide context for model results, CCWD recommends that the historical data, as well as the pre-BO (i.e. D-1641) modeling results, and the current Biological Opinion modeling results, be displayed together with results of BDCP proposed operations.</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The modeling tools used in the development of this presentation were substantially modified for preparation of the EIR/EIS.</p> <p>The models were developed throughout the completion of the EIR/EIS to consider the assumptions in the Existing Conditions, No Action Alternative, and action alternatives. These assumptions were modified substantially between 2009 and 2016. The model assumptions for Existing Conditions, No Action Alternative, and all action alternatives do include continued compliance to State Water Resources Control Board Decision 1641. However, because the 2008 USFWS and 2009 NMFS biological opinions were published in 2009, the year in which the CEQA Notice of Preparation and the NEPA Notice of Intent were published, the Existing Conditions, No Action Alternative, and action alternatives all assume implementation of the biological opinions.</p> |
| 1563 | 318 | <p>[From ATT 10:]</p> <p>Contra Costa Water District (CCWD) would like to take this opportunity to offer comments on the BDCP operational parameters and effects analysis, as presented in the September 10, 2009 Steering Committee meeting. We have this area of concern, as follows:</p> <p>X2 requirements:</p> <p>The use of a 5-month average for compliance with X2 requirements could have problematic results, such as a decrease in the temporal variability in salinity that historical conditions and the current standard provide.</p> | This comment is related to a presentation in 2009 to the BDCP Steering Committee. The modeling tools used in the development of this presentation were substantially modified for preparation of the EIR/EIS and did not include 5-month averages of X2 results. |
| 1563 | 319 | <p>[From ATT 10:]</p> <p>Contra Costa Water District (CCWD) would like to take this opportunity to offer comments on the BDCP operational parameters and effects analysis, as presented in the September 10, 2009 Steering Committee meeting. We have this area of concern, as follows:</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The EIR/EIS includes a range of alternatives with different sets of criteria for Old and Middle River flow criteria, as described in Chapter 3 and Appendix 5A of the EIR/EIS.</p> <p>The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A of the EIR/EIS due to the physical geomorphology of the channels along the approach channels</p> |

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| | | <p>Limitations on South Delta exports to prevent salvage:</p> <p>The proposed Old and Middle River flow limits should be reviewed; preliminary analysis indicates the levels may be overly restrictive and not supported by the smelt or salmon data. Furthermore, installation of positive barrier fish screens at the south Delta export facilities will allow increased pumping of about 1,000 cubic feet per second or more while still protecting covered fish species.</p> | to Clifton Court Forebay and Jones Pumping Plant approach channel. |
| 1563 | 320 | <p>[From ATT 10:]</p> <p>Evaluation and Verification of Modeling Tools:</p> <p>Modeling tools used in the BDCP analysis need to be verified and should be compared to historical data for context. The models have been modified extensively in the last year to calibrate for salinity and to incorporate new operational changes reflecting the current Biological Opinions (BOs) for the Central Valley Project (CVP) and State Water Project (SWP). They are being modified and the calibrations adjusted to reflect the proposed actions in the draft BDCP. These are not easy tasks.</p> <p>The preliminary results of the long-term effects analysis presented to the Steering Committee on September 10 include some questionable results, especially the water quality results on slide 22 (see Attachment A [ATT 10: att2]). Before the modeling tools can be used to develop, analyze and refine BDCP proposed operations, there must be a demonstration that the models are behaving in a reasonably accurate manner.</p> <p>The Reasonable and Prudent Alternatives (RPAs) in the current BOs are anticipated to alter upstream storage patterns as well as hydrodynamics and salinity within the Delta, creating a new baseline that is significantly different from the pre-2007 conditions. Monitoring data that represent the conditions anticipated under the current BOs is limited to the last one to two years, when operations included restrictions similar to some of the RPAs. Additionally, the VAMP period each year provides relevant data on expected flows and salinity within the Delta. Monitoring during these periods indicates that water quality in the Central and South Delta is likely to deteriorate during periods of low exports from the existing South Delta facilities. These conditions are unlike those we have seen in the past under prior BOs, but they are the current conditions.</p> <p>To ensure a common understanding of current conditions, as opposed to pre-2007 conditions, Contra Costa Water District suggests the following approach.</p> <p>To provide context to the analyses to be presented to the Steering Committee and its subcommittees, CCWD recommends that the historical data, as well as the pre-BO (i.e. D-1641) modeling results, and the current BO modeling results, be displayed together to provide a general understanding of where we are now and what has changed. The modeling results for the proposed BDCP operations can then be compared to these results so that there is a complete understanding of where the system was and what is proposed.</p> <p>Unfortunately, the modeling tools have previously performed poorly in simulating salinity within the Central and South Delta under conditions with low export pumping from the South Delta, such as imposed by the current BOs and anticipated in the BDCP long-term</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The modeling tools used in the development of this presentation were substantially modified for preparation of the EIR/EIS. The EIR/EIS includes assumptions for implementation of the 2008 USFWS BO and the 2009 NMFS BO under the Existing Conditions and the No Action Alternative, as described in Appendix 5A, Sections A and B.</p> |

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| | | operations. Also, two years ago CCWD pointed out that the water quality model also has some accuracy problems in the Central and South Delta during periods of seawater intrusion. When these inaccuracies are trained into CALSIM, the degree of error introduced is compounded. CCWD is hopeful that the modifications made to the models have corrected these problems; however, this has yet to be demonstrated. CCWD recommends that the California Water and Environmental Modeling Forum (CWEMF) perform an independent verification of the modeling tools. | |
| 1563 | 321 | <p>[From ATT 10:]</p> <p>The additional tidal marsh to be created within the Restoration Opportunity Areas (ROAs) is likely to have significant effects on tidal stage, flow, and salinity. For instance, the preliminary results shown on September 10 (slide 8) seem to indicate that over 2,000 acres of existing intertidal habitat within Suisun Marsh will become subtidal and an additional 500 acres of existing intertidal habitat within Suisun Marsh will no longer be inundated with the tides. Combined with the additional proposed tidal marsh areas, the subsequent effect on water quality within the Delta is likely to be substantial and we must have confidence the models are correctly predicting the effects. As mentioned above, the current preliminary water quality results are suspect. Clearly, incorporation of the ROAs cannot be compared to historical data (the areas have not been inundated historically); therefore, the modeling tools must be carefully validated, and the results carefully evaluated at incremental steps by adding portions of the proposed tidal marsh individually and then evaluating the subsequent incremental change in hydrodynamics and water quality. As recommended above, an independent analysis by CWEMF would be appropriate given the level of uncertainty in modeling a completely new environment without any historical context.</p> | <p>It should be noted that this comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the 2013 Draft EIR/EIS. Since the time of the 2013 Draft EIR/EIS, the approach for ESA and CESA compliance has been modified for Alternative 4A, the Proposed Project. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include large-scale habitat restoration acreages included in the alternatives in the 2013 Draft EIR/EIS. Alternatives 4A, 2D, and 5A do not include issuance of an HCP or NCCP, but rather ESA compliance occurs through the Section 7 process and CESA compliance occurs through the 2081(b) incidental take authorization process. Please see Master Response 5 related to the status of the BDCP. Alternative 4A also includes different operational assumptions than the action alternatives evaluated in the Draft EIR/EIS based upon input from State and Federal agencies. Please see Master Response 4 related to development of the alternatives.</p> <p>Please see Master Response 14 regarding water quality analyses for action alternatives with and without large-scale habitat restoration.</p> |
| 1563 | 322 | <p>[From ATT 10:]</p> <p>X2 Requirements:</p> <p>Contra Costa Water District questions the implementation of the X2 requirement using a 5-month (February through June) average for several reasons. The current implementation of X2, including three methods to comply with the regulation, was carefully developed to avoid unnecessary water supply impacts, while providing water quality conditions at a level of the late 1960s through early 1970s, when fish populations were generally much healthier. Changes to this methodology are fraught with problems and can have unintended consequences. For example, an average may not provide the temporal variability in salinity that the current standard provides.</p> <p>The X2 target levels (late 1960's to early 1970's) were chosen after consideration of a wide range of potential levels going back to the 1920's. As an illustration of how salinity variability has changed in the estuary, historical data, using three different decadal time periods with similar hydrological variability, are provided here.</p> <p>To evaluate the effect of the proposed BDCP operations, simulated salinity variability should be compared to the historical data presented above. A presentation of this sort makes both the average conditions and the variability readily apparent. The time period of 1965-1976 would be of particular interest.</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The modeling tools used in the development of this presentation were substantially modified for preparation of the EIR/EIS and did not include 5-month averages of X2 results.</p> |

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| 1563 | 323 | [ATT 10: att1 -- Chart of Hydrological Seasonal Variability.] | This comment describes a graphical presentation of data analysis prepared by the commenter to the comment letter. Please see response to Comment 322. |
| 1563 | 324 | <p>[From ATT 10:]</p> <p>Limitations on South Delta Exports to Prevent Direct Mortality (Salvage):</p> <p>Contra Costa Water District understands that the proposed restrictions on net flow in Old and Middle River represent the "mid-range" of the Reasonable and Prudent Alternatives (RPAs) in the current Biological Opinions (BOs). However, these values are more restrictive than necessary based on the available data, and could be further modified with implementation of additional conservation measures in the South Delta including installation of positive barrier fish screens.</p> <p>Limitations on net flow in Old and Middle River are based on the observations of increased salvage at the export facilities with large southerly monthly average net flow in Old and Middle River. The net flow in Old and Middle River is predominantly driven by the export pumping and the San Joaquin River inflow to the Delta at Vernalis. In fact, CCWD has shown that salvage at the export facilities is directly related to pumping at the export facilities and San Joaquin River inflow (Attachment C [ATT 10: att4]).</p> <p>Fish do not experience the net monthly average flow at two combined locations, but rather respond to the instantaneous velocity at the location of the fish. The correlation between net flow in Old and Middle River and salvage at the export facilities, therefore, cannot be a causal relationship, but simply represent two parameters that appear to co-vary. The cause of increased salvage is actually the elimination of the ebb (downstream) flow (Attachments C and D [ATT 10: att4 and att5]). The fundamental reason that salvage of delta smelt increases when exports exceed about 5,000 cfs plus half the San Joaquin flow (Attachment C, Figure 2), and salvage of salmon increases when exports exceed 7,000 cfs (Attachment C, Figure 3) is that the ebb tides begin to be lost at that level (Attachment C, Figure 4).</p> <p>Relationships between salvage and export pumping are further complicated by whether the fish are present in the region in which the export pumping diminishes the ebb tide. Distribution of fish is dependent on a number of water quality parameters, including turbidity, temperature, and salinity. A recent paper by Gartrell and Herbold (Attachment D [ATT 10: att5]) examines the effect of flow and salinity on salmon migration.</p> <p>All these factors come together to determine the effect of pumping on salvage. CCWD is currently evaluating relationships for salvage at the export facilities; preliminary results indicate the restrictions on Old and Middle River are possibly overly restrictive.</p> <p>Furthermore, salvage can be reduced by the implementation of positive barrier fish screens at the export facilities. Similar screens have been proven effective at the CCWD Old River intake and will work in the south Delta if the exports are constrained (as required under current BOs and proposed in the long-term BDCP operations) to moderate levels, such that the ebb tide is maintained.</p> <p>Ensuring the Delta is tidal (with flows reversing naturally approximately every six hours) will ensure that flows are available to transport fish away from the screens. Low, but still</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The EIR/EIS includes a range of alternatives with different sets of criteria for Old and Middle River flow criteria, as described in Chapter 3 and Appendix 5A of the EIR/EIS.</p> |

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| | | <p>substantial, pumping rates allow modest screen sizes that will work with ebb tides to transport aquatic species away. Implementation of positive barrier fish screens would allow pumping to be increased by about 1,000 cfs or more while still ensuring protection of covered fish species.</p> <p>The BDCP includes a conservation measure to install fish screens on agricultural intakes within the Delta. If implemented, the only intakes without fish screens will be the SWP and CVP export facilities in the South Delta. But with the low pumping rates proposed, screens will work and there is no reason not to install them, especially when they allow improved fishery protection and water supply reliability.</p> | |
| 1563 | 325 | [ATT 10: att2 -- Attachment A, Comparison of Preliminary BDCP Water Quality Results with Historical Data.] | This comment includes graphics developed by the commenter as attachments to the comment letter. Please see above responses to comments. |
| 1563 | 326 | <p>[From ATT 10: att2:]</p> <p>Preliminary results of water quality modeling presented to the Steering Committee on September 10, 2009, contain some questionable results (Figure 1 [ATT 10: att2: att1]):</p> <ol style="list-style-type: none"> 1. Salinity in the Sacramento River at Emmaton is typically the same order of magnitude as salinity in the San Joaquin River at Jersey point. However, the modeling indicates Emmaton is approximately 20 times saltier than Jersey Point. 2. Salinity within the Delta is seldom less than 200 umohms/cm, yet the modeling results indicate average salinities as low as 50 umohms/cm. 3. Historically, when seawater intrusion is significant, Rock Slough salinity is generally about 40% of that found at Jersey Point (EC). This ratio does not hold in the modeling results shown. 4. Significant freshening (lower salinity) in September relative to August (at all stations) is counter-intuitive for dry years (Fall X2 measure is likely to reduce September salinity in wet and above normal water years). <p>These inconsistencies would certainly have been caught during the review process. However, this example illustrates the need for a historical reference to provide context for the modeling results. Figure 2 [ATT 10: att2: att2] shows the average historical salinity at the same locations as the modeling results, for an historical period as close as possible to the modeling conditions (dry hydrologic period with current BO RPAs). The most recent three water years (October 1, 2006 to September 15, 2009) have been dry with some restrictions on exports, similar to the FWS RPAs.</p> <p>Providing historical context is necessary to evaluate the effect of the new BO RPAs as well as the proposed BDCP habitat changes and operations. Additionally, historical context is helpful for individuals who are unfamiliar with the historical salinity patterns.</p> | <p>This comment is related to a presentation in 2009 to the BDCP Steering Committee. The modeling assumptions included in the 2013 Draft EIR/EIS, 2015 RDEIR/SDEIS, and this 2016 Final EIR/EIS were substantially modified since the 2009 BDCP Steering Committee. 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 of the EIR/EIS provides extensive information regarding the models used to support the water supply and water quality assessments. Regarding modeling uncertainty, text has been added to Section 8.3.1.1, Models Used and Their Linkages, and "Quantitative Assessments" within Section 8.3.1.3, Plan Area, of Chapter 8 in the EIR/EIS describing validation of the models used for the assessment, and modeling limitations and uncertainty.</p> <p>Please see Master Response 14 related to Salinity.</p> |
| 1563 | 327 | [ATT 10: att2: att1 -- Figure 1: Preliminary water quality results presented to Steering Committee on September 10, 2009. Slide 22 from "Preliminary Physical Preliminary Physical Modeling off BDCP Proposed Project - Early Long-Term".] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |

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| 1563 | 328 | [ATT 10: att2: att2 -- Figure 2: Historical water quality results to provide context for modeling results. Closest period within historical record to a "Dry Period" BO baseline is water year 2007 to present (October 1, 2006 through September 15, 2009).] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |
| 1563 | 329 | [ATT 10: att3 -- Attachment B, Limitations on Exports to Prevent Direct Mortality (Salvage) at the South Delta Facilities.] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |
| 1563 | 330 | [ATT 10: att4 -- Attachment C, The Effect of Export Pumping on Flows in the Delta.] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |
| 1563 | 331 | [ATT 10: att5 -- Attachment D, Report titled "Flow, Salinity and Migration of Salmon", by Greg Gartrell (Contra Costa Water District) and Bruce Herbold (U.S. Environmental Protection Agency), 4/27/2009.] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |
| 1563 | 332 | [ATT 11: Letter from Contra Costa Water District to California Department of Water Resources dated May 14, 2009. Comments regarding Revised Notice of Preparation (February 13, 2009) of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Bay Delta Conservation Plant (BDCP).] | This comment includes a graphic developed by the commenter as attachments to the comment letter. |
| 1563 | 333 | <p>[From ATT 11:]</p> <p>Contra Costa Water District (CCWD) is concerned that the process being followed is confusing to the general public and even to those involved more directly. The Lead Agencies have filed multiple Notices of Preparation and Notices of Intent, and they are also participating in a concurrent process, the BDCP, that is both highly related and at the same time separate from this EIR/EIS. A major source of concern and confusion is that the BDCP management continues to narrow projects (indeed, it has recently excluded all options but one for evaluation) while claiming that the EIR/EIS will consider a wide range of options. It has never been made clear, however, what would occur if the outcome of the EIR/EIS analysis is inconsistent with the BDCP management decisions already made.</p> <p>These processes (EIR/EIS and BDCP) are now the subject of litigation (Central Delta Water Agency and South Delta Water Agency vs. United States Fish and Wildlife Service, et al., Eastern District of California, No. 2:09-CV-01003-JAM-GG). The outcome of that litigation is not clear and may not be settled for many months. CCWD provides these comments without making assumptions concerning the outcome of that litigation, in order to help the Lead Agencies develop the best possible document consistent with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) guidelines.</p> | <p>This comment is related to Contra Costa Water District's response to the 2009 Notice of Preparation and Notice of Intent. During development of the EIR/EIS, a reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions. 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. Please refer also to Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>Please also see Master Response 41, which explains the lead agencies' extraordinary efforts to make the process transparent to the public.</p> |
| 1563 | 334 | <p>[From ATT 11:]</p> <p>Because of the controversy surrounding the issues raised in this EIR/EIS, it is imperative that solutions with wide support that will provide immediate improvements in the Delta ecosystem and water supplies be adopted as soon as possible. Contra Costa Water District encourages the Lead Agencies to evaluate immediate, interim, and near-term projects, including the 2-Gates Demonstration Project, pilot fish screens at Clifton Court Forebay, ecosystem restoration projects, and reoperation of the Delta Cross Channel. These projects will allow critical issues to be addressed in a timely manner and lay a foundation for any long-term projects by including a monitoring component) thus expanding the scientific knowledge base of how various projects and management</p> | <p>This comment is related to Contra Costa Water District's response to the 2009 Notice of Preparation and Notice of Intent. During development of the EIR/EIS, a reasonable range of alternatives is presented in the EIR/EIS. However, the range of alternatives does not include implementation of the "Two-gates Demonstration Project" which was evaluated in a separate engineering and environmental studies which were used by Reclamation to conclude to not pursue this project.</p> <p>The analysis for Conservation Measures 2-21 was completed at a programmatic level, as described in Chapter 4 of the EIR/EIS and meets NEPA and CEQA requirements. Alternative 4 remains a viable alternative.</p> |

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| | | actions affect the environment. Each of these vital projects is described within the "Interim and Near-term Actions" section of our comments. | However, a modified proposed project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered. Alternatives 4A, 2D, and 5A no longer include Conservation Measures 2 through 21. Restoration actions that are independent of Proposed Action, such as EcoRestore which includes many of the actions considered in the 2013 Draft EIR/EIS as Conservation Measures 2 through 21, will be evaluated in separate engineering and environmental documentation and are evaluated in the Final EIR/EIS as part of the cumulative impact analysis. Please refer to Master Response 2 with regard to program level analysis and Master Response 5 related to the status of the BDCP. |
| 1563 | 335 | [ATT 11: att1 -- Attachment A, Contra Costa Water District Comments (May 14, 2009) in Response to Revised BDCP Notice of Preparation dated February 13, 2009.] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. Please see above responses to comments. |
| 1563 | 336 | [From ATT 11: ATT1:] Development of Reasonable Alternatives: The Notice of Preparation appears to have restricted the EIR/EIS to a narrow set of solutions and alternatives that are likely to result in a flawed set of environmental documents and an equally flawed plan. Failure to consider the full range of reasonable alternatives will also affect the ability of lead agencies to approve and of responsible agencies to permit any projects, potentially resulting in delays and even failure of the process to meet its goals and schedule. The full range of reasonable alternatives that could feasibly attain all or most of the BDCP's basic objectives (including but not limited to those which could avoid and/or substantially lessen significant effects of the proposed action or actions) should be considered and evaluated. | A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). 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. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. |
| 1563 | 337 | [From ATT 11: att1:] Through Delta Conveyance Alternatives: A number of proposals have been presented that do not require relocation of intakes to the north Delta, nor require construction of pipelines or canals. The following alternatives, which have been presented to the Delta Vision Blue Ribbon Task Force [Footnote 1: Descriptions of these alternatives may be downloaded from the Delta Vision website: http://deltavision.ca.gov/DeltaVisionVisions.shtml], may meet the BDCP goals without building a new conveyance around the Delta: (1) "A Long Term Vision for the Sacramento-San Joaquin Delta: A Work in Progress", submitted by: The Bay Institute, Natural Heritage Institute, Natural Resources Defense Council, The Nature Conservancy, Planning and Conservation League, California Water Impact Network and Environmental Defense; (2) "A Water Plan for the 21st Century", submitted by: In-Delta Group; and (3) "Delta Corridors", submitted by: Russ Brown. Exclusion of such alternatives is ultimately likely to result in a flawed environmental document and in vulnerability of any project decisions based on those documents. Contra Costa Water District therefore requests that these alternatives be thoroughly considered and that at least one through-Delta conveyance alternative be evaluated in the EIR/EIS in accordance with CEQA and NEPA. | <p>The alternatives included in the 2013 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 not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>Alternative 9 is based upon a Through-Delta conveyance plan which was developed in a manner that was informed by the "Delta Corridors" and "A Water Plan for the 21st Century" concepts, as described in Chapter 3 and Appendix 3A of the EIR/EIS.</p> |

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| 1563 | 338 | <p>[From ATT 11: att1:]</p> <p>Dual Conveyance Alternatives:</p> <p>The most recent Notice of Preparation (dated February 13, 2009) indicates the dual conveyance alternative may include "use of existing points of diversion during some circumstances and potential new points of diversion at various locations in the North Delta, as well as facilities to move water from new points of diversion to the existing SWP and CVP pumping facilities in the South Delta". Contra Costa Water District requests the dual conveyance alternatives in the EIR/EIS (1) include an alternative with a 2,500 cubic feet per second (cfs) pipeline and another alternative with a 5,000 cfs canal; (2) explicitly define the range of anticipated operations, and include analysis of operations under the higher bypass flow scenario proposed by the California Department of Fish and Game; and (3) include modification of existing South Delta export facilities.</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> |
| 1563 | 339 | <p>[From ATT 11: att1:]</p> <p>New Physical Conveyance Facility:</p> <p>2,500 cfs Pipeline -</p> <p>The EIR/EIS should evaluate a dual conveyance alternative with a 2,500 cubic feet per second (cfs) pipeline to move water from the new North Delta diversion(s) to the SWP and CVP export facilities in the South Delta. While meeting water supply reliability goals, the smaller capacity facility would leave more water in the river system to benefit the environment and maintain or improve water quality (see environmental impacts section).</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>The EIR/EIS alternatives includes Alternative 5 as a dual conveyance alternative with conveyance capacity from the north Delta intakes of 3,000 cfs. Alternative 5 includes use of tunnels/pipelines instead of canals.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 340 | <p>[From ATT 11: att1:]</p> <p>[A new physical conveyance] facility should be constructed as a pipeline, which has a number of benefits over an open canal for the following issue:</p> <p>Seismic Stability -</p> <p>Since the conveyance facility will likely be crossing liquefiable soils in a seismically active region, seismic stability is a key issue. A pipeline, or a series of pipelines, would reduce risk of failure and shorten the time period the facility would be out-of-service for repair</p> | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Initially only canals and through-Delta concepts were considered during the early phases of the</p> |

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| | | <p>following a seismic failure in comparison to an open canal built of earthen levees.</p> <p>The existing Delta levees are currently being evaluated for risk to seismic events as part of the Delta Risk Management Strategy. Given the potential risk, it is difficult to justify building another 80 miles of levees associated with an unlined canal (the embankments) on top of liquefiable soils. Removal, replacement, and compaction of those soils, along with the cost of damage to existing drainages and associated land uses are likely to make a pipeline cost-effective compared to a properly designed canal capable of providing a secure water supply.</p> | <p>EIR/EIS development.</p> <p>In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. The Proposed Project, Alternative 4A, includes use of tunnels/pipelines.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 341 | <p>[From ATT 11: att1:]</p> <p>[A new physical conveyance] facility should be constructed as a pipeline, which has a number of benefits over an open canal for the following issue:</p> <p>Maintenance -</p> <p>Plant growth within earthen canals inhibits flow and contributes to levee instability. However, the use of chemical herbicides is increasingly problematic due to regulatory constraints.</p> <p>Earthen canals leak, both into and out of the canal.</p> <p>Canal levees are also subject to erosion from wind waves. For certain storm events, the proposed canal alignments will have very long fetch, which would produce large wind waves within the canal, potentially causing significant erosion and overtopping. Using rip-rap or other means to resist the action of wind waves will increase head losses along the canal, resulting in larger cross-sections and larger environmental impacts.</p> <p>Flooding of an island upon which a canal is constructed will subject the external canal levees to wave action, erosion and seepage. A levee break on a river near a canal will subject the canal to potential failure from the erosive forces of the floodwaters filling the island. Either situation will potentially disable all supplies through the canal for an extended period.</p> <p>In contrast, a pipeline, or series of pipelines, would not be subject to routine damage and maintenance associated with plant growth or wind waves and would provide protection from erosive forces of a flooded island.</p> | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Initially only canals and through-Delta concepts were considered during the early phases of the EIR/EIS development.</p> <p>In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. The Proposed Project, Alternative 4A, includes use of tunnels/pipelines.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 342 | <p>[From ATT 11: att1:]</p> <p>[A new physical conveyance] facility should be constructed as a pipeline, which has a number of benefits over an open canal for the following issue:</p> <p>Physical Barrier -</p> <p>Canals, in general, create a migration corridor barrier for terrestrial species.</p> <p>Canals will sever many large tracts of agricultural land, and create severe drainage issues that will be very expensive to mitigate, if mitigation is at all possible.</p> | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Initially only canals and through-Delta concepts were considered during the early phases of the EIR/EIS development.</p> |

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| | | These impacts would be reduced or completely eliminated by constructing a buried pipeline rather than a canal. | <p>In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. The Proposed Project, Alternative 4A, includes use of tunnels/pipelines.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 343 | <p>[From ATT 11: att1:]</p> <p>[A new physical conveyance] facility should be constructed as a pipeline, which has a number of benefits over an open canal for the following issue:</p> <p>Contamination/Security Risk -</p> <p>Open canals are vulnerable to contamination from runoff, spills, and intentional acts. Securing the water supply in a pipeline would alleviate this risk.</p> | <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Initially only canals and through-Delta concepts were considered during the early phases of the EIR/EIS development.</p> <p>In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. The Proposed Project, Alternative 4A, includes use of tunnels/pipelines.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 344 | <p>[From ATT 11: att1:]</p> <p>Contra Costa Water District's experience with a much smaller and shorter unlined canal has led CCWD to a decision to replace it with a pipeline. It is likely that a complete evaluation of the benefits of a small pipeline will show it to be a better alternative than an unlined, vulnerable canal. The EIR/EIS should include a dual conveyance alternative consisting of a screened intake and pipeline (instead of a canal) with a capacity of approximately 2,500 cubic feet per second (cfs).</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a 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 not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>The EIR/EIS alternatives includes Alternative 5 as a dual conveyance alternative with conveyance capacity from the north Delta intakes of 3,000 cfs. Alternative 5 includes use of tunnels/pipelines instead of canals.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of</p> |

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| | | | alternatives. |
| 1563 | 345 | <p>[From ATT 11: att1:]</p> <p>5,000 cfs [cubic feet per second] Canal -</p> <p>The EIR/EIS should evaluate a second dual conveyance alternative with a 5,000 cfs to move water from the new North Delta diversion(s) to the SWP and CVP export facilities in the South Delta.</p> <p>A recent study [Footnote 2: California Department of Water Resources. 2008. An Initial Assessment of Dual Delta Water Conveyance.] by the Department of Water Resources (DWR) compared the water supply benefit of three canals of different capacity, diverting water from the North Delta, and operated in a dual conveyance scenario with existing South Delta facilities. Results indicate essentially no water supply benefit of a larger capacity facility (10,000 cfs or 15,000 cfs) relative to a smaller capacity facility (5,000 cfs). For example, the DWR study indicates that a new 5,000 cfs isolated facility operated with priority over the existing South Delta facilities would yield a combined 6,440 thousand acre-feet per year (TAF/year) and the 15,000 cfs isolated facility in similar fashion would yield an additional 90 TAF/year on average, less than 1.5% increase in water supply. During drought periods, the 15,000 cfs facility actually yields 10 TAF/year less than the 5,000 cfs facility.</p> <p>Additionally, the larger facility will reduce Delta inflow by a larger amount, causing larger impacts on Delta water quality and fisheries (see environmental impacts section). Since a 5,000 cfs capacity canal could feasibly attain the same level of water supply reliability, while substantially lessening the significant effects of the isolated facility, the EIR/EIS should evaluate a dual conveyance alternative with a 5,000 cfs canal.</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives.</p> <p>The EIR/EIS alternatives includes Alternatives 3 and 5 as dual conveyance alternatives with conveyance capacity from the north Delta intakes of 6,000 cfs and 3,000 cfs, respectively. Alternatives 3 and 5 include use of tunnels/pipelines instead of canals.</p> <p>Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> |
| 1563 | 346 | <p>[From ATT 11: att1:]</p> <p>Operation of New and Existing SWP and CVP Facilities:</p> <p>Operation of the new and existing SWP and CVP facilities will greatly affect the potential impacts; therefore, the EIR/EIS must fully disclose and analyze the full range of anticipated operations of each conveyance alternative.</p> <p>BDCP modeling studies [Footnote 3] to date have shown that the new isolated facility being considered is clearly oversized. Oversizing the facility implies that the operational constraints that were modeled might be changed or relaxed, allowing the facility to be used more often than evaluated within the EIR/EIS and/or that additional facilities are anticipated but not included in the environmental documentation.</p> <p>For example, BDCP studies evaluating the 15,000 cfs (cubic feet per second) capacity isolated canal, operated in a dual conveyance scheme with preferential use over the existing South Delta export facilities, have shown that much of the capacity of the facility would be seldom used, creating an under-performing asset. As illustrated in Figure 1 [ATT 11: att1: att1], the modeling results for "Scenario 1" [Footnote 4] indicate that 80% of the time, the canal would carry less than 10,000 cfs; 50% of the time, the canal would carry less than 4,500 cfs; and 12% of the time, the canal would carry no water at all (the</p> | <p>This comment is on materials prepared prior to publication of the 2013 Draft EIR/EIS. During preparation of the EIR/EIS, a range of alternatives were considered, as described in Chapter 3 and Appendix 3A in the EIR/EIS. The EIR/EIS includes conveyance options that range from 15,000 to 3,000 cfs. As shown in Appendix 5A, Section C, SWP and CVP exports would be similar under alternatives with 9,000, 12,000, and 15,000 cfs north Delta intake capacities. Therefore, the Proposed Project, Alternative 4A, includes north Delta intakes with a total capacity of 9,000 cfs.</p> <p>The bypass flows were developed in coordination with the USFWS, NMFS, and CDFW in a public process at the BDCP Steering Committee. Please see Master Response 41 regarding transparency of issues discussed at the BDCP Steering Committee.</p> <p>As shown in Appendix 5A, Section C, the north Delta intake tunnels would not be fully utilized except for a few months in wet years. However, it is important to have the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years.</p> <p>Please see Master Response 30 related to Modeling and Master Response 5 related to status of BDCP.</p> |

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| | | <p>equivalent of one year in eight, the canal would be empty).</p> <p>The frequency that the isolated facility would be used depends on the operational constraints for the facility, such as the amount of water that must be allowed to stay in the Sacramento River, passing the North Delta intakes (i.e. "bypass flows"), the water quality standards within the Delta and Suisun Bay, and the amount of storage in the system. Figure 1 indicates that the isolated facility would be slightly fuller if the restrictions for bypass flows are lowered ("Scenario 2" [Footnote 5] has lower bypass flow requirements than "Scenario 1"; all other assumptions are equal between the two scenarios). Similarly, the isolated facility would likely be slightly less full (i.e. emptier) if higher bypass flows are required.</p> <p>A higher bypass flow scenario proposed by the California Department of Fish and Game (CDFG) has not been examined by the BDCP. The high bypass flow scenario should be analyzed in the EIR/EIS along with the low and mid-level bypass flow scenarios and the environmental impacts of each examined.</p> <p>[Footnote 3: All references to BDCP modeling studies and results provided within these comments refer to the most recently distributed modeling report: Bay Delta Conservation Plan Integration Team. February 2009. "Draft Technical Memorandum: Summary of Preliminary Modeling of Draft BDCP Conservation Strategy-Core Elements". Assumptions of this modeling are further described in the BDCP "Overview of the Draft Conservations Strategy for the Bay Delta Conservation Plan" (revised January 12, 2009).]</p> <p>[Footnote 4: Assumptions used in modeling "Scenario 1" include (1) increased frequency and duration of diversion through Yolo Bypass; (2) a 15,000 cfs canal with diversion locations in the North Delta near Hood; (3) mid-level bypass flow requirements at the North Delta diversion location of 11,000 cfs during winter-spring; (4) Restrictions on South Delta exports to maintain net flow in Old and Middle River greater (more positive) than -3,500 cfs from December through June and greater than -5,000 cfs from July through November; (5) Closure of Delta Cross Channel gates for all months except July and August and half of September and October; and (6) large-scale tidal marsh restoration in Cache Slough.]</p> <p>[Footnote 5: Assumptions used in modeling "Scenario 2" are the same as "Scenario 1" (listed above), with the following exception: "Scenario 2" assumes a low-level bypass flow requirement of 5,000 cfs in the winter-spring period.]</p> | |
| 1563 | 347 | [ATT 11: att1: att1 -- Figure 1. Graph showing Use of Isolated Facility with 15,000 cfs Capacity, BDCP Modeling for DRERIP Analysis (1/11/09). BDCP modeling studies indicate a 15,000 cfs isolated canal would be an under-performing asset.] | This comment describes a graph prepared by the commenter related to the north Delta intakes and included in the comment letter. Please see above responses to comments. |
| 1563 | 348 | <p>[From ATT 11: att1:]</p> <p>Draft BDCP documents [Footnote 6: Bay Delta Conservation Plan. 2009. Overview of the Draft Conservation Strategy for the Bay Delta Conservation Plan (January 12, 2009)] recognize that water supply is limited by South of Delta storage facilities and that "[s]ome combination of improved operations of existing storage, new surface storage, and expanded groundwater storage is likely to occur in the future", and BDCP modeling</p> | <p>As described in Chapter 3 and Appendix 3A of the EIR/EIS, a wide range of alternatives were considered in the development of the EIR/EIS. Please see Master Response 41 regarding transparency of issues discussed at the BDCP Steering Committee.</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</p> |

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| | | <p>indicates little dry year improvement in water supplies (Figure 2 [ATT 11: att1: att2]).</p> <p>On several occasions in the BDCP Steering Committee, in its workgroups and in discussions led by BDCP consultants, new storage facilities have been cited as the primary reason for oversizing the facility. In addition, there has been discussion on the sharing of CVP and SWP storage in San Luis Reservoir to improve deliveries from the SWP and CVP with an isolated facility. The under-use of the proposed 15,000 cfs facility in BDCP analyses, combined with discussions about the improvement in use of the facility with new storage or operations, indicates that other options not being considered in the analyses are in fact being considered for the future by the Lead Agencies and others. Otherwise, there would be no reasonable basis for constructing the large facility currently under consideration.</p> <p>If operations to work around shortages, such as flexibility in San Luis Reservoir operations (e.g., lending storage capacity between the CVP and SWP), are anticipated, the operations must be fully described and analyzed within the EIR/EIS, with full disclosure of potential impacts. Similarly, if construction of additional storage is the basis for the physical conveyance capacity of the isolated facility, future operation of the isolated facility in coordination with the additional storage must be fully described and analyzed within the EIR/EIS, with full disclosure of potential impacts. Failure to do so would be evidence of piecemealing.</p> <p>The BDCP modeling studies described herein have been used by various BDCP workgroups to evaluate possible benefits and impacts of the proposed project (e.g. the DRERIP evaluation) and to recommend changes in operation of the isolated facility. Those studies are the basis of this revised Notice of Preparation. Therefore, all BDCP studies, reports and analyses to date must be included in the administrative record.</p> | <p>reliability of exported supplies. It is important to note that the Proposed Project is not intended to serve as a statewide 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. The action alternatives do not include facilities to increase surface water or groundwater storage. 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.</p> <p>Please see Master Response 30 related to Modeling and Master Response 5 related to status of BDCP.</p> |
| 1563 | 349 | [ATT 11: att1: att2 -- Figure 2. Bar graph showing Comparison of Water Supply for Different Hydrological Conditions, BDCP Modeling for DRERIP Analysis (1/11/09). BDCP modeling studies indicate little improvement in water supplies during relatively dry hydrological periods.] | This comment describes a graph prepared by the commenter related to average exports and included in the comment letter. Please see above responses to comments. |
| 1563 | 350 | <p>[From ATT 11: att1:]</p> <p>Modification of Existing South Delta Export Facilities:</p> <p>BDCP modeling to date has demonstrated the necessity of continued reliance on existing South Delta export facilities. Even with the proposed 15,000 cfs isolated conveyance facility operated preferentially over the South Delta export facilities, the South Delta export facilities would average between 900 cfs and 4,500 cfs seasonally over a long period (82 years) of hydrological variability (Figure 3 [see ATT 11: att1: att3]). The percentage of total exports taken from the South Delta facilities would be largest during dry periods, averaging between 74% for mid-level bypass flow requirements in critically dry years (Figure 4 [see ATT 11: att1: att4]) and 40% for low-level bypass flows requirements in dry years (Figure 5 [see ATT 11: att1: att5]). The percentage of total exports taken from the South Delta facilities would be even higher for the high bypass flow case proposed by California Department of Fish and Game that must be included in the analysis for full disclosure.</p> | <p>This comment is on materials prepared prior to publication of the 2013 Draft EIR/EIS. During preparation of the EIR/EIS, a range of alternatives were considered, as described in Appendix 3A of the EIR/EIS. The results of the impact analysis presented in the EIR/EIS indicates that for all dual conveyance action alternatives, south Delta exports are highest during drier periods and when the north Delta bypass flow criteria limits uses of the north Delta intakes, as presented in Chapter 5 and Appendix 5A, Section C, of the EIR/EIS.</p> <p>Please see Master Response 30 related to Modeling, and Master Response 5 related to status of BDCP.</p> |

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| 1563 | 351 | <p>[From ATT 11: att1:]</p> <p>Due to the continued reliance on existing South Delta export facilities, the EIR/EIS should include measures to reduce direct mortality offish at these facilities in each of the dual conveyance alternatives and the through Delta conveyance alternatives. Measures to reduce direct mortality at the existing South Delta facilities would work towards the stated project objectives, specifically "to be granted incidental take permits for the covered species that authorize take related to ... operation of existing State Water Project Delta facilities".</p> <p>The EIR/EIS should examine fully screening all intakes at export facilities, including the existing export intakes in the South Delta, with positive barrier fish screens. An examination of the salvage and fish population data shows strong correlations between winter salvage at the existing SWP facilities and reduced Fall Mid-Water Trawl population numbers for several species, including delta smelt. Screening these facilities to eliminate salvage and loss of adult delta smelt would improve fish population numbers and avoid a number of significant impacts associated with large canals.</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 2009 NMFS biological opinion on the SWP and CVP. For example, in 2014 Reclamation replaced the secondary louver 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 (BDCP Appendix 5B Section 3.B.3.3). The south Delta export facilities are located on dead-end channels and requires 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 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 NMFS biological opinion.</p> <p>Please see Master Response 30 related to Modeling and Master Response 5 related to status of BDCP.</p> |
| 1563 | 352 | <p>[From ATT 11: att1:]</p> <p>Alternatives that would also reduce take in the South Delta, such as use of bypass flows, barriers and separation of Old and Middle Rivers to provide a habitat corridor, were developed in the Delta Vision process and should be evaluated in detail in the EIR/EIS. Failure to consider measures to reduce take at the existing South Delta facilities would render the document incomplete and inadequate.</p> | <p>The alternatives included in the 2013 Draft EIR/EIS represent a reasonable range of alternatives and the scope of the analysis of alternatives complies with both CEQA and NEPA. The specific proposals that were considered but ultimately not evaluated in detail by the Lead Agencies are discussed in Appendix 3A of the EIR/EIS. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS, including concepts that would require actions that are beyond the scope of the BDCP.</p> <p>A reasonable range of alternatives is presented in the EIR/EIS. Appendix 3A, provides an analysis and screening of alternatives considered for environmental review. The selected action alternatives have been determined to meet the project objectives and purpose and need for the Project. Since 2006, the Proposed Project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. 15 alternatives and 3 new subalternatives were analyzed in the EIR/EIS and the RDEIR/SDEIS respectively, to meet the co-equal goals of improving water supply reliability and Delta ecosystem conditions, including only north Delta intakes (Alternative 6), through-Delta (Alternative 9), and dual conveyance with north and south Delta intakes (all other action alternatives). Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. Please see Master Response 30 related to Modeling, and Master Response 5 related to status of BDCP</p> <p>Alternative 9 is based upon a Through-Delta conveyance plan which was developed in a manner that was informed by the alternatives considered in the Delta Vision process and alternatives submitted as part of this EIR/EIS scoping process, including the "Delta Corridors" and "A Water Plan for the 21st Century" concepts, as described in Chapter 3 and Appendix 3A of the EIR/EIS.</p> |
| 1563 | 353 | <p>[ATT 11: att1: att3 -- Figure 3. Graph showing Reliance on South Delta Exports, BDCP Modeling for DRERIP Analysis (1/11/09).]</p> | <p>This comment describes a graph prepared by the commenter related to average exports and included in the comment letter.</p> |

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| 1563 | 354 | [ATT 11: att1: att4 -- Figure 4. Chart showing Comparison of Water Supply Diversion Location for Different Hydrological Conditions, BDCP Modeling for DRERIP Analysis (1/11/09). BDCP modeling of dual conveyance with mid-level bypass flow requirements in the North Delta would rely on South Delta diversions for approximately 2,500 TAF/year during dry and critical years.] | This comment describes a graph prepared by the commenter related to average exports and included in the comment letter. |
| 1563 | 355 | [ATT 11: att1: att5 -- Figure 5. Chart showing Comparison of Water Supply Diversion Location for Different Hydrological Conditions, BDCP Modeling for DRERIP Analysis (1/11/09). BDCP modeling of dual conveyance with low-level bypass flow requirements in the North Delta rely on South Delta diversions for approximately 2,000 TAF/year during dry and critical years.] | This comment describes a graph prepared by the commenter related to average exports and included in the comment letter. |
| 1563 | 356 | <p>[From ATT 11: att1:]</p> <p>Interim and Near-term Actions:</p> <p>Interim and near-term actions will allow critical issues to be addressed in a timely manner and lay a foundation for any long-term projects by expanding the scientific knowledge base of how various projects and management actions affect the environment.</p> <p>These projects are vital to the health of the Delta ecosystem and reliability of the SWP and CVP water supply. Therefore, they should be considered as components in each of the EIR/EIS alternatives or they should be started separately immediately.</p> <p>Such projects could have immediate benefits and provide valuable data to assist in the operation of a dual conveyance facility. Project-level evaluation of these near-term solutions could be undertaken concurrently with a programmatic evaluation of the longer-term dual conveyance facility to enable these near term improvements to be done separately on an accelerated schedule where necessary.</p> | <p>This comment requests that near term or interim BDCP action be implemented on an expedited schedule to gain valuable information that could be used to improve the Project. The BDCP contains a discussion of the early implementation actions with a schedule for implementation. Some of these actions would occur before and concurrently with implementation of conveyance facilities. Since the time of the 2013 Draft EIR/EIS a new preferred alternative (Alternative 4A) has been proposed as the California WaterFix. This alternative would not implement the amounts of habitat restoration and other actions proposed under the BDCP. Instead the State has committed to a separate program, the California EcoRestore program, which would implement up to 30,000 acres of habitat restoration projects on an expedited timeframe, to begin Delta ecological benefits immediately.</p> <p>Please see Master Response 4 related to Alternatives Analysis and Master Response 5 related to status of the BDCP.</p> |
| 1563 | 357 | <p>[From ATT 11: att1:]</p> <p>Central Delta Pilot Projects:</p> <p>A number of potential pilot projects, with goals similar to the BDCP effort, have been proposed in the central Delta. The projects could provide protection to Delta fish by impeding migration toward the South Delta export facilities (thus reducing take) and improve water quality by reducing salinity intrusion in the fall. For instance, Metropolitan Water District of Southern California, a potentially regulated entity of the BDCP, has proposed various barrier configurations and operational modifications [Footnote 7: The "2-Gates Demonstration Project" involves the placement of temporary barriers along Old River and Connection Slough to demonstrate and validate the value of proposed modifications to the flow patterns in the Sacramento-San Joaquin River Delta with regard to the protection of sensitive species and management of water supply. An Administrative Draft of the Biological Assessment was provided for DWR review in April 2009.] to provide for protection of delta smelt equivalent to the operational restrictions mandated by the 2008 U.S. Fish and Wildlife Biological Opinion [Footnote 8: U.S. Fish and Wildlife Service (USFWS). 2008. Biological Opinion on the Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP). Final. December 15, 2008.], while reducing the water supply impacts and Delta water quality degradation resulting</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 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.</p> |

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| | | <p>from implementation of the same Biological Opinion.</p> <p>If these projects are not started immediately on their own, then the EIR/EIS should incorporate similar near-term actions in each of the alternatives, designed with an integral monitoring component to evaluate the effects of these barriers on multiple species of concern.</p> | |
| 1563 | 358 | <p>[From ATT 11: att1:]</p> <p>Fish protection screens at Clifton Court Forebay:</p> <p>Implementation of pilot screens at or near Clifton Court Forebay could immediately reduce the loss of fish by predation in the Clifton Court Forebay and through salvage operations. Bond funding is already available for this project. This should be examined and environmental documentation completed on its own accelerated schedule. Information from such a pilot project will provide valuable information for the EIR/EIS, as each of the EIR/EIS alternatives should include measures to reduce take at the South Delta facilities, including the installation of positive barrier fish screens.</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 2009 NMFS biological opinion on the SWP and CVP. For example, in 2014 Reclamation replaced the secondary louver 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 (BDCP Appendix 5B Section 3.B.3.3). The south Delta export facilities are located on dead-end channels and requires 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 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. DWR and Reclamation will continue investigating strategies to increase fish salvage efficiency, reduce pre-screen losses, and improve screening efficiencies, consistent with the 2009 NMFS biological opinion.</p> |
| 1563 | 359 | <p>[From ATT 11: att1:]</p> <p>Ecosystem Habitat Improvements:</p> <p>A number of ecosystem habitat improvements could be incorporated into the near-term actions of the BDCP. Many projects have been proposed and advanced to various levels, but have not yet produced environmental documents. By incorporating these habitat improvement projects into the EIR/EIS, the projects would contribute to species recovery in the near-term and provide additional information for subsequent habitat improvement projects. Examples of such projects include:</p> <ul style="list-style-type: none"> * Restoration of floodplain habitat and salmon migration through the Yolo Bypass; * Brackish tidal marsh habitat development in Meins Landing in Suisun Marsh; and * Freshwater tidal marsh habitat development on Decker Island or Liberty Island. <p>These projects can increase evapo-transpiration over existing levels, and can affect water supplies and water quality. Such projects should be included in the EIR/EIS, with full evaluation and disclosure of potential impacts, including impacts to water supplies and water quality so that adequate mitigation measures can be developed to reduce any impacts to insignificance.</p> | <p>The 2013 Draft EIR/EIS considered BDCP action alternatives with large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A are being considered to provide modified conveyance facilities for the SWP and CVP, and do not include an HCP component and large-scale habitat restoration. The Proposed Project includes minimal habitat restoration as necessary to mitigate significant environmental effects and satisfy applicable CWA, ESA and CESA standards, including Section 7 of ESA. Therefore, the time-frame of the analysis presented in the RDEIR/SDEIS and Final EIR/EIS for Alternatives 2D, 4A, and 5A is at Early Long-Term (2025/2030) which represents the time when the proposed facilities will be constructed and become operational.</p> <p>Instead the State has committed to a separate program, the California EcoRestore program, which would implement up to 30,000 acres of habitat restoration projects on an expedited timeframe, to begin Delta ecological benefits immediately. It also should be noted that habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternative 4A. Please see Master Response 4 regarding development of alternatives.</p> |

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| 1563 | 360 | <p>[From ATT 11: att1:]</p> <p>Delta Cross Channel Operations:</p> <p>Alternative operation of the Delta Cross Channel (DCC) was proposed as part of the North/Central Delta Salmon Out-migration Study, coordinated by the Department of Water [Footnote 9: Study proposal and review documents are available on the DWR project website: http://baydeltaoffice.water.ca.gov/ndelta/salmon/index.cfm]. Based on the results of previous studies, the principal investigators hypothesize that the DCC "gates could be operated with respect to the diel cycle to minimize fish movements into the central Delta while at the same time minimizing water quality impacts in the central Delta. These observations motivate the idea of closing the gates at night, presumably a period when salmon outmigrants are more vulnerable to entrainment into the DCC. Using this operational strategy, the DCC would be allowed to convey water into the central Delta during the day (and recreational boaters could move freely from the central to northern Delta through the DCC), where it would presumably alleviate water quality concerns and allow increased exports over fully closed conditions." [Footnote 10: Burau, Jon, Aaron Blake, and Russell Perry. 2007. Sacramento/San Joaquin River Delta Regional Salmon Outmigration Study Plan: Developing Understanding for Management and Restoration.]</p> <p>The EIR/EIS should incorporate modifications to the DCC operations as a near-term action in each of the through Delta alternatives and dual conveyance alternatives, designed with an integral monitoring component to evaluate the effects of the barrier operations on multiple species of concern. Reoperation of the DCC could have immediate benefits and provide valuable data to assist in the long-term operation of a through Delta or dual conveyance project.</p> | <p>Alternatives 1 through 8 (including Alternatives 2D, 4A, and 5A) operate the Delta Cross Channel gates under the same assumptions as under the Existing Conditions and No Action Alternative in accordance with State Water Resources Control Board Decision 1641 and 2009 NMFS biological opinion.</p> <p>Reclamation is undertaking pilot studies to modify Delta Cross Channel gate operations in accordance with recommendations under the 2009 NMFS biological opinion. Separate engineering and environmental studies will be completed based upon findings of the pilot studies. Results of those separate studies would result in subsequent decisions about operations of the Delta Cross Channel gates.</p> |
| 1563 | 361 | <p>[From ATT 11: att1:]</p> <p>Potential Environmental Impacts to be addressed:</p> <p>Contra Costa Water District comments on potential environmental impacts focus primarily on the quality of water necessary to support existing beneficial uses and the regulatory and legal framework that prohibits degradation of water quality and on water supplies. This section is concluded with some additional comments concerning the potential impacts of a new conveyance facility.</p> <p>Water quality and water supply:</p> <p>Delta waters support multiple beneficial uses, and Delta water quality and water supply is protected by regulatory policies and federal and state laws. The project effect on Delta water quality and water supply must be fully evaluated and disclosed and mitigation measures proposed and adopted to reduce significant impacts to insignificance.</p> | <p>Please refer to Master Response 22, Mitigation and Master Response 14, Water Quality.</p> <p>For information on Significant and Unavoidable Impacts, please see Master Response 10.</p> |
| 1563 | 362 | <p>[From ATT 11: att1:]</p> <p>Fisheries Impacts:</p> <p>Scientific research concerning the current pelagic organism decline (POD) has highlighted the importance of water quality in ecosystem function. The basic conceptual model</p> | <p>Analysis of potential effects to covered and noncovered fish species because of changes in the salinity gradient, as indexed by X2, is provided in Chapter 11 of the EIR/EIS; including impact AQUA-5 for delta smelt. X2 results underlying these analyses are presented in Appendix 5A, Section C.</p> |

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| | | <p>[Footnote 11: Interagency Ecological Program for the San Francisco Estuary (IEP). January 2008. Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. Available at http://www.science.calwater.ca.gov/pdf/workshops/POD/IEP_POD_2007_synthesis_report_031408.pdf] for the POD identifies the following relevant physical and chemical water quality parameters that determine the habitat suitability: salinity, temperature, turbidity, contaminants, disease, and toxic algae.</p> <p>The salinity gradient as indexed by the position of X2 [Footnote 12: X2 is the distance from the Golden Gate to the location of the 2 psu isohaline measured near the bottom of the water column.] is correlated to the abundance of numerous species [Footnote 13: Jassby, A. D., W. J. Kimmerer, S. G. Monismith, C. Armor, J. E. Cloern, T. M. Powell, J. R. Schubel, and T. J. Vendlinski. 1995. Isohaline position as a habitat indicator for estuarine populations. <i>Ecological Applications</i> 5; 272-289.], indicating that population levels increase as the salinity gradient is pushed seaward. Although the relationships between populations and X2 have changed with the introduction of the invasive clam <i>Corbula amurensis</i> and, more recently, for certain species during the POD years, freshwater flow continues to be an important requirement for a healthy ecosystem. Therefore, the EIR/EIS should analyze the impacts to X2, listing the average monthly value and maximum daily change in X2 from the baseline conditions. If the EIR/EIS proposes changes to the existing X2 standards, the EIR/EIS must demonstrate that the changes benefit the fish populations for which the standards were developed, including the new X2 requirement imposed by U.S. Fish and Wildlife Service [Footnote 14: U.S. Fish and Wildlife Service (USFWS). 2008. Biological Opinion on the Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP). Final. December 15, 2008.] for implementation in the fall months following wet and above normal water years.</p> | |
| 1563 | 363 | <p>[From ATT 11: att1:]</p> <p>The Bay Institute has developed a Delta flow index that shows strong correlations to a composite Delta fish abundance index [15] The Delta flow index should also be used to evaluate impacts of alternatives.</p> <p>Additionally, analysis by Contra Costa Water District shows that the abundance of juvenile delta smelt in summer (as measured by the Summer Townet Survey, TNS) is significantly correlated with the salinity in the Western Delta during the previous fall, a finding that has been confirmed by peer review [16] This relationship is strengthened further when the analysis is expanded to account for the number of adult delta smelt available to reproduce (as measured by the Fall Midwater Trawl survey, FMWT). A multiple regression analysis of fall salinity, FMWT, and TNS for the following summer yields one of the strongest predictors for delta smelt abundance. [17] The POD years appear as anomalies in this relationship likely due to the exceptionally low population levels and a significant stock-recruitment relationship.</p> <p>This research is consistent with analysis of habitat environmental quality by the DWR [18], which found a long-term environmental quality decline for delta smelt characterized by increases in fall salinity and decreases in fall turbidity. The recent synthesis of POD research [19] suggests the decline in environmental quality has had "population-level consequences for delta smelt".</p> <p>Due to this evidence that salinity is an important indicator of population abundance for a</p> | <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. The EIR/EIS analyses assess outflow-related effects of operations on covered and noncovered fishes. This was done, for example, with assessment of X2 effects on relative abundance of longfin smelt, striped bass, and other species, as well as on abiotic habitat index for delta smelt.</p> |

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| | | <p>number of species, and fall salinity is particularly important for delta smelt, the EIR/EIS should assess the project's effect on salinity at multiple locations in Suisun Bay and within the Delta. The salinity regime under project conditions should be compared to the salinity regime under current conditions and compared to the observed salinity regime at different time periods in history (e.g. 1910's, 1960's, 1970's, 1980's). The impact of changes in salinity should be discussed in terms of the potential impact to the covered species resulting from direct changes to habitat environmental quality and resulting from indirect changes due to the likely effect on distribution of invasive species, such as the overbite clam <i>Corbula amurensis</i> and aquatic water weed <i>Egeria densa</i>, which could have a subsequent impact to fisheries.</p> <p>[Footnote 15: The Bay Institute. June 19, 2007. Presentation to the State Water Resources Control Board: Recommendations to Improve Fishery Resources, Slow or Stop the Decline of Delta Smelt, and Improve Water Quality Conditions in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Available at: http://www.waterrights.ca.gov/baydelta/docs/pelagicorganism/tbi_swanson_ppt_061907.pdf]</p> <p>[Footnote 16: Manly, Bryan F. J. 2006. Review of Analyses Presented at the Environmental Water Account Meeting, December 7-8, 2005.]</p> <p>[Footnote 17: The Bay Institute, 2007. Petition to the State of California Fish and Game Commission and supporting information for listing the delta smelt (<i>Hypomesus transpacificus</i>) as an endangered species under the California Endangered Species Act. Available online at: http://www.bay.org/delta.smelt.petition.pdf. Equation 3 ($p = 0.004$; $p < 0.05$ is significant).]</p> <p>[Footnote 18: Feyrer, F., M. Nobriga, and T. Sommer. 2007. Multi-decadal trends for three declining fish species: habitat patterns and mechanisms in the San Francisco Estuary, California, U.S.A. Canadian Journal of Fisheries and Aquatic Sciences 64:723-734]</p> <p>[Footnote 19: Interagency Ecological Program for the San Francisco Estuary (IEP). Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. January 2008. Available at http://www.science.calwater.ca.gov/pdf/workshops/POD/IEP_POD_2007_synthesis_report_031408.pdf]</p> | |
| 1563 | 364 | <p>[From ATT 11: att1:]</p> <p>In addition to salinity, the BDCP has the potential to change the residence times in the Delta in significant ways, thus impacting temperature, turbidity, and contaminant concentrations. Assumptions regarding contaminant loads from the San Joaquin River must be realistic and cover a range of future scenarios, and disclose the potential impacts of any long residence times in the South Delta that could adversely affect sensitive species.</p> <p>Any assumptions regarding efficacy of existing contaminant source control programs must recognize the risk that if those programs do not meet targets then the project analysis may be flawed, and may fail to meet conservation goals. Therefore, the project should analyze impacts of contaminant residence times (such as selenium) at current and</p> | <p>To the extent that residence time could affect a water quality condition, it was assessed in Chapter 8, Water Quality (e.g., for selenium and Microcystis). Also, please refer to Master Response 14 regarding the analysis of residence time for selenium assessments.</p> |

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| | | future levels, without always assuming the contaminant is removed by other projects. | |
| 1563 | 365 | <p>[From ATT 11: att1:]</p> <p>Temperature is recognized to be an important water quality factor for fish. High temperatures will increase mortality of juvenile salmon and delta smelt. The proposed project alternatives can affect Delta temperatures in significant and adverse ways, increasing residence times and raising temperatures. The effects of alternatives on temperatures and the effects of temperature on migratory and resident species should be examined in the EIR/EIS.</p> | <p>To the extent that temperature could affect aquatic resources in the Sacramento River and Delta, it was assessed in Chapter 11 of the EIR/EIS. As discussed in Chapter 11 under Impact AQUA-4 for delta smelt, for example, there is little potential for operations to affect Delta water temperature, which is largely driven by atmospheric conditions. This has been confirmed with additional modeling of the Proposed Project (Alternative 4A) as part of the Biological Assessment that was submitted by Reclamation for the ESA Section 7 consultation.</p> |
| 1563 | 366 | <p>[From ATT 11: att1:]</p> <p>The potential for increased temperature and increased nutrient concentrations are likely to affect algal growth patterns in the Delta. Certain algal species (e.g. microcystis) are known to be detrimental to sensitive aquatic species. The EIR/EIS should analyze any potential changes to algal growth, including the frequency and location of large, toxic algal blooms and the effects of such algal blooms on migratory and resident species should be examined in the EIR/EIS.</p> | <p>The assessment in Chapter 8 of the EIR/EIS addressed the potential for increased nitrogen compounds (Impacts WQ-1 and WQ-2 for ammonia and Impacts WQ-15 and WQ-16 for nitrate) and phosphorus (Impacts WQ-23 and WQ-24). These assessments concluded that all action alternatives would have less than significant impacts to these constituents.</p> <p>As discussed in Chapter 11 under Impact AQUA-4 for delta smelt, for example, there is little potential for operations to affect Delta water temperature, which is largely driven by atmospheric conditions. This has been confirmed with additional modeling of the Proposed Project (Alternative 4A) as part of the Biological Assessment that was submitted by Reclamation for the ESA Section 7 consultation. The discussion of dissolved oxygen in Chapter 8 of the EIR/EIS also notes that Delta water temperatures are driven primarily by ambient air temperatures.</p> <p>Assessment of effects to Microcystis and microcystin levels in the upstream of Delta and Delta regions, SWP/CVP export service area, and San Francisco Bay is included in the 2015 RDEIR/SDEIS in Impacts WQ-32, WQ-33, and WQ-34 and Chapter 8 of the Final EIR/EIS. For Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 3, 4, 5, 6A, 6B, 6C, 7, 8, 9, the impact conclusion was significant, primarily due to the increased residence time that would occur in certain Delta channels that could potentially lead to increased Microcystis blooms and, thus, microcystins in the waters. These increased residence times would be primarily associated with the proposed restoration areas.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) and Alternatives 2D and 5A being considered to provide modified conveyance facilities for the SWP and CVP and does not include large-scale habitat restoration. For Alternatives 4A, 2D, and 5A, the impact on Microcystis and microcystin would be less than significant.</p> <p>Please see Master Response 14 related to water quality and the Microcystis assessment.</p> |
| 1563 | 367 | <p>[From ATT 11: att1:]</p> <p>Drinking Water Impacts:</p> <p>Increased algal growth within the Delta will cause adverse effects for drinking water supplies due to the release of organic chemicals from algal cells either during normal metabolic processes or following rupture of algal cells after the algae die. The most common of these problems are taste and odor and the potential for increased formation of trihalomethanes during the water treatment process. Additionally, hepatotoxins from blue-green algae are increasingly recognized as a potential health hazard in drinking</p> | <p>Assessment of effects to Microcystis and microcystin levels, chloride, bromide, and organic carbon in the Delta and San Francisco Bay is included in Chapter 8 of the EIR/EIS. The impact analysis in EIR/EIS Chapter 25, Public Health, addresses certain water quality parameters that are of public health and drinking water concern—including the disinfection byproduct precursors, DOC and bromide. That analysis relies on and summarizes results in Chapter 8 as they pertain to those water quality parameters only in the context of exceedance(s) of water quality criteria for constituents of concern in drinking water sources. Please see Master Response 14.</p> |

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| | | <p>water supplies, potentially causing acute or chronic liver injury, with the possibility of enhanced susceptibility to, and growth of, liver tumors. The EIR/EIS should analyze the effect of increased algal growth on drinking water beneficial uses.</p> <p>Delta water is subject to large variations in salinity and mineral concentrations, which may be altered by project operations. The EIR/EIS should analyze the changes caused by the project on a daily basis for chloride, bromide, and organic carbon concentrations at all existing and planned drinking water intakes in the Delta and provide for mitigation where appropriate. Bromide and organic carbon are precursors that can result in production of bromate, trihalomethanes, and other disinfection byproducts with potential public health impacts.</p> <p>Contra Costa Water District has relied on the Delta as a drinking water source since 1940 (see Attachment C [not included with comments]). Through changes to water quality within the Delta (described above) and the timing of Delta "surplus" conditions, the project may have a significant impact on CCWD operations. Therefore, the EIR/EIS must fully analyze and disclose the changes to Delta water quality, including chloride, bromide, and organic carbon concentrations on a daily basis, and the timing of Delta surplus to allow a complete evaluation on the potential economic impacts to CCWD operations.</p> | |
| 1563 | 368 | <p>[From ATT 11: att1:]</p> <p>Regulatory and Legal Constraints:</p> <p>A recent report by DWR prepared for the Delta Vision Blue Ribbon Task Force indicates the BDCP Steering Committee may propose relaxing one or more water quality standards. [Footnote 20: California Department of Water Resources. 2008. An Initial Assessment of Dual Delta Water Conveyance. p. 34.] However, numerous regulatory policies and federal and state laws are intended to prevent degradation of water quality. This section is only a brief summary of some relevant regulatory and legal constraints.</p> <p>Contra Costa Water District has observed that federal and state anti-degradation policies seriously constrain, if not outright prohibit, the relaxation of water quality standards. At the request of the State Water Resources Control Board, CCWD prepared a letter summarizing the legal obstacles to relaxation of the southern Delta salinity standards, which is applicable to the relaxation of any water quality standards. This February 13, 2007 letter is enclosed and herein incorporated into CCWD's scoping comments (see Attachment D [not included with these comments]).</p> <p>Regardless of action by the State Water Resources Control Board, federal law (P.L. 99-546) requires that the CVP be operated to meet water quality standards at the intake of the Contra Costa Canal on Rock Slough, as established in 1978 in Water Right Decision 1485.</p> <p>"The Secretary is further directed to operate the Central Valley Project, in conjunction with the State Water project, so that water supplied at the intake of the Contra Costa Canal is of a quality equal to the water quality standards contained in the Water Right Decision 1485 of the State of California Water Resources Control Board, dated August 16, 1978, except under drought emergency water conditions pursuant to a declaration by the Governor of California. Nothing in the previous sentence shall authorize or require the</p> | <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. At that time, the proposed BDCP include moving the compliance location for salinity under the State Water Resources Control Board Decision 1641 on the Sacramento River at Emmaton to Three-Mile Slough. Alternatives 1 through 9 evaluated in the Draft EIR/EIS also included this proposed re-location of the compliance location. Following publication of 2013 Draft EIR/EIS, the Proposed Project (Alternative 4A) and Alternatives 2D and 5A were modified in response to public and agency input to no longer include an HCP and NCCP applications and the associated large-scale habitat restoration, and to not re-locate the compliance location from Emmaton. As described in Chapter 8 and Appendices 8E through 8N , Alternatives 4A, 2D, and 5A would have substantially less effect on Delta water quality as compared to the No Action Alternative 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 due to mitigation measures. The significant impacts to EC are to be mitigated through real-time operations that could not be completely represented in the modeling on which the EC assessment is based. Please see Master Response 14 related to water quality analyses, including compliance with federal and state antidegradation policies in the CEQA/NEPA process.</p> <p>In addition to potential effects associated with the project and alternatives, modeling results for the No Action Alternative indicate that, with or without the proposed project, rising sea levels will bring saline tidal water further into the Delta than occurs at present.</p> |

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| | | <p>relocation of the Contra Costa Canal intake." [Footnote 21: Public Law 99-546, enacted October 27, 1986. This Federal legislation approved the Coordinated Operations Agreement between the Bureau of Reclamation and the Department of Water Resources.]</p> <p>Furthermore, the Delta Protection Act requires that substituting a water supply in lieu of meeting the required salinity and water supply requirements of Delta water users be done without imposition of any financial burden on said Delta water users.</p> <p>"If it is determined to be in the public interest to provide a substitute water supply to the users in said Delta in lieu of that which would be provided as a result of salinity control no added financial burden shall be placed upon said Delta water users solely by virtue of such substitution." [Footnote 22: California Water Code, Section 12202.]</p> <p>Any proposals to change current water quality standards must be thoroughly evaluated and, regardless of whether such changes are assumed to be lawful, the impacts on all beneficial uses of Delta water must be disclosed.</p> | |
| 1563 | 369 | <p>[From ATT 11: att1:]</p> <p>Direct fish mortality due to entrainment:</p> <p>Previous research [Footnote 23: Smith, P., J. Simi, C. Ruhl, and J. Donovan. October 24, 2006. Presentation at CALFED Science Conference. Hydrodynamic Influence on Historical Patterns in Delta Smelt Salvage.] showed correlations between winter exports and salvage levels at the export pumps, although the authors used Old and Middle River flows as a surrogate for the effect of export pumping. More recent work by Contra Costa Water District confirms a stronger correlation between winter salvage at the export pumps and the quantity: exports minus one-half of the San Joaquin River flow. CCWD has also found that winter exports, as well as winter salvage at the SWP intake, are both strongly correlated with subsequent Fall Mid Water Trawl indices (increased salvage correlates with decreased FMWT).</p> <p>Inasmuch as exports and San Joaquin River flow are independent (physically and mathematically) variables [Footnote 24: Conversely, Old and Middle River flows are dependent variables and influenced by a number of factors totally unrelated to salvage at the export pumps.], impacts should be analyzed against unscreened export levels and San Joaquin River flows. Furthermore, in order to avoid this impact and meet project objectives, the plan should examine the benefits of installing, positive barrier fish screens on reducing salvage and potentially increasing FMWT indices, and the additional benefits on through-Delta flows, fisheries and water quality levels. The EIR/EIS should examine using positive barrier fish screens on all export facilities in order to achieve the project goal of obtaining a take permit for operation of existing and future facilities.</p> | <p>DWR is required to improve salvage efficiency as part of compliance with the 2009 NMFS biological opinion.</p> <p>The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A of the EIR/EIS due to the physical geomorphology of the channels along the approach channels to Clifton Court Forebay and Jones Pumping Plant approach channel. 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 NMFS biological opinion.</p> <p>As described in the Final EIR/EIS, use of the north Delta intakes in a coordinated manner with the south Delta intakes is projected to reduce the potential for entrainment loss for delta smelt (see Impact AQUA-3 in Chapter 11 of the EIR/EIS).</p> |
| 1563 | 370 | <p>[From ATT 11: att1:]</p> <p>Additional potential impacts associated with proposed new conveyance facilities and operations:</p> <p>The EIR/EIS should fully evaluate and disclose potential impacts, and propose mitigation</p> | <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. At that time, the proposed BDCP alternatives were primarily based upon construction of major canals to convey water. The commenter states that the EIR/EIS should address landscape and drainage obstruction. The commenter expresses concern that a canal would sever property, disrupt island drainage, and create barriers to wildlife movement. The commenter also states the EIR/EIS should evaluate the alternative of a pipeline conveyance system. Most of the action alternatives, including Alternative 4A,</p> |

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| | | <p>measures where appropriate, of new conveyance facilities and operations, including, but not limited to, the following:</p> <p>Landscape and Drainage Obstruction:</p> <p>The canal will sever property, disrupt island drainage, and create a barrier to migration corridors, just as the existing Delta-Mendota Canal and California Aqueducts created a major migration barrier for the San Joaquin kit fox, cutting off the northern habitat in Alameda and Contra Costa Counties from the San Joaquin Valley. Additionally, the existing irrigation and drainage ditches that the canal will sever may be considered as habitat for various special status species. The EIR/EIS should fully evaluate and disclose these potential impacts. The EIR/EIS also should evaluate the alternative of a pipeline conveyance system in order to avoid this impact.</p> | <p>the Proposed Project, include pipelines/tunnels. In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Master Response 4 for a discussion of the adequacy of the EIR/EIS alternatives. The Proposed Project, Alternative 4A, includes use of tunnels/pipelines. Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> <p>The EIR/EIS includes alternatives that do include major canals (1B, 1C, 2B, 2C, 6B, and 6C). These alternatives were evaluated for their effects on wildlife movement corridors and the fragmentation of habitat, which included the evaluation of habitat for special-status species that would be affected by canal construction and operations.</p> |
| 1563 | 371 | <p>[From ATT 11: att1:]</p> <p>Additional potential impacts associated with proposed new conveyance facilities and operations:</p> <p>The EIR/EIS should fully evaluate and disclose potential impacts, and propose mitigation measures where appropriate, of new conveyance facilities and operations, including, but not limited to, the following:</p> <p>Seepage from Isolated Canal to Adjacent Lands:</p> <p>If the water level in the isolated canal is expected to be above the surrounding land surface elevation for large sections of the canal route, the seepage from the unlined canal would impact land use adjacent to the canal as well as water quality in adjacent channels. The EIR/EIS should fully evaluate and disclose impacts associated with seepage and provide for mitigation where appropriate. The EIR/EIS also should evaluate the alternative of a pipeline conveyance system in order to avoid this impact.</p> | <p>The CVHM-D analysis presented in Chapter 7 of the EIR/EIS, indicated that seepage could occur from the canal into the groundwater and onto adjacent lands when the water elevation in the canal was located at a higher level than the groundwater elevation; and water could seep into the canal when the groundwater elevation was higher than the water elevation in the canal. As described in Chapter 7, specific design criteria for the canals would be developed during the design phase, including methods such as toe drains, to reduce seepage potential. The EIR/EIS included action alternatives which included tunnels/pipelines conveyance facilities as an alternatives to canals to reduce seepage potential along the conveyance alignment.</p> |
| 1563 | 372 | <p>[From ATT 11: att1:]</p> <p>Additional potential impacts associated with proposed new conveyance facilities and operations:</p> <p>The EIR/EIS should fully evaluate and disclose potential impacts, and propose mitigation measures where appropriate, of new conveyance facilities and operations, including, but not limited to, the following:</p> <p>Water flows and Migration of Aquatic Species:</p> <p>New facilities and operations may alter flows in the Delta, and could disrupt aquatic migration corridors for resident and migrating fish. All impacts of changed flows must be thoroughly evaluated and disclosed.</p> <p>Bypass flows near intakes are important to adequately protect fisheries. At the same time, relocating existing intakes and diverting water at new locations may limit diversion of flows that are needed for bypass flows or preclude diversion of flows that come from other parts of the system and are not available at the new intakes. Consequently, there</p> | <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. The EIR/EIS includes analysis of effects using the best available information to evaluate the potential fish and water quality effects from the proposed operations of the action alternatives in Chapters 11 and 8, respectively, and their associated appendices.</p> |

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| | | <p>may be a reduction in supplies available for export while, at the same time, those changes result in water quality degradation in other areas of the Delta. These potential impacts should be fully evaluated and disclosed.</p> <p>Recent studies within the Delta indicate that certain life stages of sensitive fish species respond to the local tidal velocity (including secondary currents at river bends) the amount of daylight, and local turbidity and salinity gradients. The EIR/EIS should rely on the best available science, including the behavioral models discussed below, to evaluate the potential impacts of changes in tidal velocity, turbidity, and salinity.</p> | |
| 1563 | 373 | <p>[From ATT 11: att1:]</p> <p>Sacramento River and Mokelumne River Salmonids:</p> <p>Results from a pilot study of salmon outmigration in the North Delta [Footnote 25: Results of the pilot study are presented in Bureau et al. 2007. Sacramento/San Joaquin River Delta Regional Salmon Outmigration Study Plan: Developing Understanding for Management and Restoration.] indicate that survival of juvenile salmonids decreased with decreasing net flow. In other words, the probability that a given fish will survive migration through a specific channel reach was increased as the net flow in the channel reach was increased. Therefore, reducing the net flow through a migratory pathway has the potential to reduce survival of fish through that pathway (i.e. increase indirect mortality due to predation or toxics).</p> <p>Proposed diversions in the North Delta would reduce net flow along the Sacramento River below the diversion locations, reduce net flow in Sutter, Steamboat, and Georgiana Sloughs, and potentially reduce net flow on the lower Mokelumne River system, dependent on the operation of the Delta Cross Channel (DCC) gates [see next comment]. Based on the pilot study cited above, this reduction in net flow throughout the North Delta is likely to reduce survival of outmigrating juvenile salmonids. The EIR/EIS must fully evaluate the increased indirect mortality of juvenile salmonids as a result of North Delta diversions.</p> | <p>Quantified flow-survival relationships specific to different Delta reaches, as well as flow-specific routing at junctions, form the basis for the Delta Passage Model, which was used in the EIR/EIS analyses. The data used to develop the Delta Passage Model were more recent and detailed than the Bureau et al. (2007) study that the commenter cites, and are considered the best available information to address the issue that the commenter raises.</p> |
| 1563 | 374 | <p>[From ATT 11: att1:]</p> <p>Increased closure of the Delta Cross Channel (DCC) gates is likely to impact juvenile salmonids emigrating from the Mokelumne and Cosumnes River systems. Since closure of the DCC gates reduces net flow on the lower Mokelumne system, it is likely that survival on these reaches is also reduced. Preliminary review of the timing of the proposed increase in DCC closure periods in relation to the timing of outmigrating populations, indicates that the proposed closures have the potential to affect a larger fraction of the population for Mokelumne River salmonids, impacting an additional 15% of fry, 37% of sub-yearling smolts, and 27% of yearling fall run Chinook salmon smolts and impacting an additional 36% of fry, 49% of sub-yearling smolts, and 33% of yearling steelhead smolts. Furthermore, some emigrating steelhead smolts are known to outmigrate through the</p> <p>DCC and down the Sacramento River; extended DCC closures would reduce potential use and increase mortality for this migratory pathway. The EIR/EIS must fully evaluate the increased indirect mortality of juvenile salmonids as a result increased DCC closure</p> | <p>Chapter 11 in the EIR/EIS includes analyses on indirect effects to salmonids in various river segments in the Delta, including the Mokelumne River. The Delta Passage Model evaluates salmonid survival using flow-survival relationships, among others, derived from hatchery fish studies to quantify estimates of relative Chinook salmon smolt survival through the Delta (entering the Delta from the Sacramento, Mokelumne, and San Joaquin Rivers) to Chipps Island.</p> <p>For more information on impacts to salmonid migration in the Delta as a result of operating the Proposed Project, Alternative 4A, please see Chapter 11 of the EIR/EIS. In addition, while the modeling may indicate slight differences in Delta Cross Channel gate operations compared to the No Action Alternative due to various modeling assumptions, the Proposed Project does not propose to modify existing Delta Cross Channel gate operational criteria.</p> <p>Reclamation is undertaking pilot studies to modify Delta Cross Channel gate operations in accordance with recommendations under the 2009 NMFS biological opinion. Separate engineering and environmental studies will be completed based upon findings of the pilot studies. Results of those separate studies would result in subsequent decisions about operations of the Delta Cross Channel gates.</p> |

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| | | periods. | |
| 1563 | 375 | <p>[From ATT 11: att1:]</p> <p>Preliminary BDCP modeling utilized the Delta Simulation Model II - Particle Tracking Model (DSM2-PTM) to examine travel time (time for a certain percent of particles to travel a particular reach) and particle fate (percent of particles to reach a particular boundary location). The DSM2-PTM model assumed the particles were neutrally buoyant and did not exhibit any swimming behavior. [Footnote 26: Bay Delta Conservation Plan Integration Team. 2009. Draft Technical Memorandum: Summary of Preliminary Modeling of Draft BDCP Conservation Strategy - Core Elements.] However, a study in the North Delta revealed that secondary circulation patterns influenced the spatial distribution of fish near a bend in the Sacramento River near Clarksburg. [Footnote 27: Preliminary results of the Clarksburg Bend January 2007 study are presented in Appendix C of Burau et al. 2007. Sacramento/San Joaquin River Delta Regional Salmon Outmigration Study Plan: Developing Understanding for Management and Restoration.] Additionally, research by Blake and Horn [Footnote 28: Blake, A. and M.J. Horn. In Press, "Acoustic Tracking of Juvenile Chinook Salmon Movement in the Vicinity of Georgiana Slough, Sacramento River. California - 2003 Study Results." - USGS SIR-XXXX] has shown that juvenile salmon approaching channel junctions are not split into each of the channels at the same ratio as the net flow split. These results indicate that juvenile salmon should not be modeled as neutrally buoyant particles; rather, a model of salmon behavior must be utilized to effectively assess the potential impacts to outmigrating salmonids.</p> | <p>Residence time in the Delta is a function of the open water areas and their connectivity in addition to the Delta flows. In the 2013 Draft BDCP, DSM2 particle-tracking modeling was used to estimate the likely residence times in the Delta, several open water bodies representing the large-scale tidal habitat restoration. These open water bodies were assumed to be connected to the existing Delta channels.</p> <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. At that time, the proposed BDCP alternatives were primarily based upon assumptions related to implementation of large-scale habitat restoration and consistent opening of the Montezuma Slough Salinity Gate. These assumptions were analyzed in the action alternatives in the 2013 Draft EIR/EIS. In response to comments received during the 2013-2014 public comment period, State and Federal agencies, the Proposed Project (Alternative 4A) was developed analyzed in the RDEIR/SDEIS and does not include large-scale habitat restoration and operations of the Montezuma Slough Salinity Gate operations occurs as under the Existing Conditions under the No Action Alternative and Alternatives 4A, 2D, and 5A.</p> <p>Please see Master Response 5 related to status of the BDCP.</p> |
| 1563 | 376 | <p>[From ATT 11: att1:]</p> <p>Changes in hydrodynamics in the North and Central Delta have the potential to affect both the distribution of salmon (through route selection) and the survival of salmon (through changes to the travel time and exposure to taxis and predators). The overall survival of juvenile salmonids emigrating from the Sacramento River is determined by the probability of route selection at each river junction combined with the probability of survival through each individual river reach -- the North/Central Delta Salmon Out-migration Study is designed to estimate these probabilities in response to a range of river flows and DCC operations. The EIR/EIS should incorporate results from this study to evaluate impacts on juvenile salmonids.</p> | <p>Quantified flow-survival relationships specific to different Delta reaches, as well as flow-specific routing at junctions, form the basis for the Delta Passage Model, which was used in the EIR/EIS analyses. The data used to develop the Delta Passage Model were more recent and detailed than the Bureau et al. (2007) study that the commenter cites, and are considered the best available information to address the issue that the commenter raises.</p> |
| 1563 | 377 | <p>[From ATT 11: att1:]</p> <p>San River Salmonids:</p> <p>Relatively high salinity along the San Joaquin River and within the South Delta creates an inverse salinity gradient within the South and Central Delta (Figure 6 [ATT 11: att1: att6]), with salty bay water to the west and salty San Joaquin River water to the south. In this situation, fish in the Central Delta may not be able to determine an out-migratory pathway towards the ocean based on local salinity conditions; in other words, if fish utilize salinity gradients to migrate toward the ocean, the fish could get turned around in the Central Delta.</p> <p>Transport in the South and Central Delta, including the lower San Joaquin River, Old River, and Middle River, is largely influenced by the tidal dynamics and pumping at the South</p> | <p>Please see Master Response 14 related to Salinity gradients.</p> <p>Some studies on average flows have shown that overall patterns of fish entry into junctions can be well predicted by daily averaging of hydrodynamic variables (see Cavallo et al. 2015. Env Biol Fishes 98(6):1571-1582; and references discussed therein).</p> |

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| | | Delta export facilities. Fish react to their local environment, including the tidal velocity and the local salinity gradient. Fish do not react to daily average flows, which depend not only on the local tidal velocity near the fish, but the tidal velocity in areas where the fish is not present and the geometry of the channel cross-section (a mathematical value the fish cannot measure). Gartrell and Herbold (2009) [Footnote 29: Gartrell, G. and B. Herbold. April 27, 2009. Flow, Salinity and Migration of Salmon.] discuss the difference between average flow and tidal velocity, and how the "net flow model" leads to incorrect conclusions; the paper also presents a tidal perspective of salinity gradients to provide an explanation of observations. The EIR/EIS should consider the effects of project alternatives on salinity gradients in the Delta and the subsequent effect on aquatic species. | |
| 1563 | 378 | [ATT 11: att1: att6 -- Figure 6. Illustration depicting typical spatial distribution of salinity. High salinity on the San Joaquin River and within the South Delta creates an inverse salinity gradient, which could be detrimental to aquatic species.] | This comment describes a graph prepared by the commenter related to Delta salinity and included in the comment letter. Please see response to Comment 377. |
| 1563 | 379 | [From ATT 11: att1:] Delta Smelt: Resource Management Associates, Inc. (RMA) has developed a particle tracking model that incorporates behavior related to turbidity and salinity gradients to simulate the distribution of adult delta smelt and entrainment by export pumps. Model results compare favorably with the timing of historical salvage at the South Delta export facilities; additionally, the author hypothesizes that reductions in South Delta exports may actually increase salvage during certain time periods due to the potential collapse of the low turbidity zone in the Central Delta. [Footnote 30: "Particle Modeling of Adult Delta Smelt with Behavior based on EC and Turbidity Distributions" presented by John DeGeorge (RMA) at California Water and Environmental Modeling Forum 2009 Annual Meeting.] The EIR/EIS should evaluate potential impacts to direct mortality of adult delta smelt at the South Delta export facilities using the best available scientific tools and provide for mitigation, including the use of positive barrier fish screens, where appropriate. | The methods used in the analysis of the EIR/EIS were developed in association with the resource agencies and reflect the best available science given the modeling inputs that exist. Lack of turbidity modeling means that models relying on turbidity inputs cannot be reliably used, hence the simpler approach adopted in the analyses. The potential for adding fish screens to the existing south Delta intake at Clifton Court Forebay was evaluated by Department of Water Resources and found to not be feasible, as described in Section 3A.7 of Appendix 3A of the EIR/EIS due to the physical geomorphology of the channels along the approach channels to Clifton Court Forebay and Jones Pumping Plant approach channel. 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 NMFS biological opinion. |
| 1563 | 380 | [From ATT 11: att1:] Sediment and Nutrient Load Reduction: By diverting a large fraction of the flow on the Sacramento River, the canal will remove a similar fraction of the sediment and nutrient load, potentially effecting turbidity and nutrients within the Delta. As discussed above, turbidity has been identified as an important factor in the environmental quality for delta smelt. Any changes to turbidity and nutrients should be fully evaluated and disclosed, with proposed mitigation measures, where appropriate. | Effects of the action alternatives on turbidity were analyzed as described in Chapter 8 and the associated appendices of the EIR/EIS under Impacts WQ-29 and WQ-30. Effects of the action alternatives on nutrients are discussed under Impacts WQ-1 and 2 (ammonia), Impacts WQ-16 and WQ-17 (nitrate), and Impacts WQ-23 and WQ-24 (phosphorus). Impacts to these constituents were determined to be less than significant/not adverse requiring no mitigation. Please see Master Response 14. |
| 1563 | 381 | [From ATT 11: att1:] Flood Risk: An unlined canal will create new flood risks. An unlined canal crossing liquefiable soils will be subject to failure in seismic events and allow disruption of vital water supplies for long | Chapter 9 of the EIS/EIR describes liquefaction hazards that exist for those alternatives involving canals, both lined and unlined. It also evaluates alternatives (e.g., the Proposed Project, Alternative 4A) using tunnels/pipelines conveyance systems. Please see Final EIR/EIS, Appendix 6A – BDCP/California WaterFix Coordination with Flood Management |

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| | | periods. The EIR/EIS must fully evaluate and disclose these impacts of using an unlined canal for transport of water supplies. The EIR/EIS also should evaluate the alternative of a pipeline conveyance system in order to avoid this impact. | Requirements. |
| 1563 | 382 | <p>[From ATT 11: att1:]</p> <p>Operation and Maintenance Practices:</p> <p>Since the Notice of Preparation indicates operation and maintenance of the proposed facilities will be a covered action, the EIR/EIS must evaluate the impacts associated with anticipated operation and maintenance activities, including:</p> <ul style="list-style-type: none"> * aquatic weed management and the potential use of herbicides or physical cleaning of vegetation that will be necessary along, and in, any canal, especially during the long winter periods in dry years when the canal is not used. * levee maintenance, and * facility security. <p>The potential impact of maintenance activities on the habitat within the canal as well as downstream beneficial uses, such as recreational use in reservoirs, agricultural irrigation, and drinking water must be considered.</p> <p>Oversizing the canal may lead to additional operating expenses and maintenance-related impacts. For instance, vegetation is likely to establish within the open canal during low flows. The vegetation would need to be cleared before the canal can carry high flows during the peak diversion periods. The EIR/EIS must fully evaluate the additional aquatic weed management activities associated with sub-optimal flows within the canal.</p> | <p>This comment is from a 2009 letter in response to the 2009 CEQA Notice of Preparation and the 2009 NEPA Notice of Intent. At that time, the proposed BDCP alternatives were primarily based upon construction of major canals to convey water. The commenter states that the EIR/EIS should address landscape and drainage obstruction and a concern that a canal would sever property, disrupt island drainage, and create barriers to wildlife movement. Most of the action alternatives, including Alternative 4A, the Proposed Project, include pipelines/tunnels. In response to comments from the public and public agencies, alternatives with tunnels/pipelines were included in the range of alternatives evaluated in detail in the EIR/EIS. Please see Chapter 3 and Appendix 3A of the EIR/EIS and Master Response 4 regarding development of alternatives.</p> <p>Please see Appendix 6A of the Final EIR/EIS related to levee maintenance in the Delta.</p> |
| 1563 | 383 | [ATT 38.1: Attachment 1 -- Report on Review of Bay Delta Conservation Program Modeling, MBK Engineers and Dan Steiner, 6/20/2014. See also BDCP1722-ATT 1, BDCP1633-ATT 1, and BDCP1597-ATT 6.1] | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS. |
| 1563 | 384 | <p>[From ATT 38.1:]</p> <p>Implementation of Climate Change:</p> <p>The analysis presented in the BDCP Documents attempts to incorporate the effects of climate change at two future climate periods: the early long term (ELT) at approximately the year 2025; and the late long term (LLT) at approximately 2060. As described in the BDCP documents [Footnote 2: BDCP EIR/EIS Appendix 5A, Section A and BDCP HCP/NCCP 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 was then used to estimate runoff into from the watersheds over an 82-year period of variable hydrology; these time series were then used as inputs into the BDCP Model. A second aspect of climate change, the anticipated amount of sea level rise, is incorporated into the BDCP CalSim II model by modifying flow-salinity relationships that estimate salinity within the Delta based on sea level and flows within Delta channels.</p> | <p>The discussion in the first paragraph of this comment is consistent with information presented in the EIR/EIS. The second paragraph is a summary of what was developed by the author of this attachment to the commenter's letter; and does not reflect the approach used in this EIR/EIS.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | This Report does not evaluate the analytical processes by which reservoir inflows and runoff were developed, nor does it evaluate the modified flow-salinity relationships that are assumed due to sea level rise; those items could be the focus of another independent review. This Report is limited to evaluating how the modified flows were incorporated into the BDCP Model and whether the operation of the CVP and SWP water system in response to the modified flows and the modified flow-salinity relationship is reasonable for the ELT and LLT conditions. This work reviews the assumed underlying hydrology and simulated operation of the CVP/SWP, assumed regulatory requirements, and the resultant water delivery reliability. | |
| 1563 | 385 | [ATT 38.1: att1 -- Table 1. Scenarios used to evaluate climate change.] | <p>This comment describes a table prepared by the commenter related to climate change assumptions in the EIR/EIS and included in the comment letter.</p> <p>Please see Master Response 19 related to Climate Change and GHG.</p> |
| 1563 | 386 | <p>[From ATT 38.1:]</p> <p>Climate change implementation is incorrect, yielding non-sensible results.</p> <p>Climate change hydrology in the Upper San Joaquin River basin (above Friant Dam) was incorporated incorrectly into the BDCP Model, resulting in non-sensible results. Because overall CVP operations and the San Joaquin River are interconnected, this error causes problems throughout the CVP system. With the coordinated operations of the CVP and SWP, this error can affect the SWP system.</p> <p>Specifically, under climate change, inflow to Millerton Lake is expected to decrease (BDCP DEIR/EIS, Appendix 29B). However, when climate change was implemented into the BDCP Model, it was done incorrectly such that: (1) the inflow into Millerton Lake was not adjusted for climate change and is thus overestimated, and yet (2) the flood control operations and water allocation decisions for Millerton Lake were adjusted for climate change as if the inflow was reduced. The net effect is that storage in Millerton Lake is overestimated; in fact, the BDCP model indicates that the amount of water stored in Millerton Lake will actually be increased as a result of climate change even though the inflow to the lake is projected to be reduced (i.e., non-sensible). This error results in the overestimation of Millerton Lake storage causing an overestimation of reservoir releases for flood control purposes and available water downstream at the Mendota Pool; these unreasonably high flood releases are then diverted by CVP exchange contractors in lieu of taking CVP Delta water, which means that either CVP Delta exports are reduced or the water is backed up into San Luis Reservoir (SLR), overestimating SLR storage. Furthermore, any excess water from the Millerton Lake that is not diverted at Mendota Pool would continue downstream and ultimately increase Vernalis flow, which subsequently affects Delta exports. Ultimately, changes in exports have the potential to affect upstream reservoir releases (i.e., from Lake Shasta) as well.</p> <p>This is a situation where one seemingly minor error cascades through the entire system. This error exists in all BDCP Model scenarios (baselines and project alternatives) that have climate change incorporated at either ELT (Early Long Term) or LLT (Late Long Term) conditions. In other words, all model results reported in the BDCP and associated Draft EIR/EIS contain this error, with the only exception of the Existing Biological Conditions</p> | <p>The climate change assumptions were consistent across all the EIR/EIS, including the No Action Alternative, in the Draft EIR/EIS for the Late Long-term; and across Alternatives 2D, 4A, and 5A and No Action Alternative in the RDEIR/SDEIS.</p> <p>As shown in the EIR/EIS, San Joaquin River operations remain unchanged under the action alternatives compared to the No Action Alternatives.</p> <p>The error in the Millerton Lake climate-modified inflow was found to only affect Millerton Lake storage and flows in the San Joaquin River, and it had only minor impacts to the Delta and Sacramento River operations under Alternatives 1 through 9 as compared to the No Action Alternative in the Draft EIR/EIS; and under Alternatives 2D, 4A, and 5A as compared to the No Action Alternative in the RDEIR/SDEIS.</p> <p>Please see Master Response 19 related to Climate Change and GHG.</p> |

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| | | baselines numbers 1 and 2 (EBC1 and EBC2), which are evaluated in the BDCP. | |
| 1563 | 387 | <p>[From ATT 38.1:]</p> <p>Effects of climate change create unrealistic operations.</p> <p>Review of the BDCP Model output for the Without Project condition with climate change assumptions for the ELT (Early Long Term) or LLT (Late Long Term) (NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term), respectively) reveal that the model is operated beyond its usable range. The purpose of CalSim II is to simulate how the CVP and SWP systems would be operated in order to meet regulatory requirements and water delivery objectives based on a certain amount of precipitation and runoff. When the precipitation patterns and resultant runoff were changed in the BDCP Model for climate change, the logic regarding how the system is operated to meet the regulatory and water delivery objectives was not changed. The net effect is that neither the regulatory criteria nor the delivery objectives are met.</p> <p>With rising temperatures and shifting precipitation patterns with less snow, temperature criteria on the Sacramento River will become increasingly more difficult to meet. For instance, the BDCP Model includes an assumption that equilibrium temperatures in the Sacramento River between Shasta and Gerber will increase on an average annual basis by 1.6°F by 2025 (ELT) by 3.3°F by 2060 (LLT). NMFS 2009 Biological Opinion specifies temperature targets of 56°F in the Sacramento River between Balls Ferry and Bend Bridge for the protection of salmon. Because of lower storage conditions in Shasta Lake and the magnitude of temperature increase in the assumptions is so large, the BDCP Model shows that the probability of exceeding the mortality threshold in the Sacramento River at Bend Bridge in August and September increases from approximately 80% in the No Action Alternative to 90% to 95% by 2025 (under ELT conditions) and to 95% to 100% by 2060 (under LLT conditions). This significant difference shows the overwhelming influence that the climate change assumptions have on the BDCP Model results.</p> | <p>It is recognized in the EIR/EIS that operations of 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. It would be speculative to develop changes in 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 (see Chapter 2 in the EIR/EIS). 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>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. Please see Master Response 19 related to Climate Change and GHG.</p> |
| 1563 | 388 | <p>[From ATT 38.1:]</p> <p>Reservoir Storage: Under the climate change scenarios, reservoir storage (particularly in the CVP system) is operated very aggressively so that the reservoirs are drawn down to an extremely low level (termed "dead pool") in approximately 1 of every 10 years, even without the BDCP. At dead pool level, little or no water can be released from the reservoir -- not for fish, not for drinking water, not for agriculture. For example, since Folsom Reservoir became operational in 1955, the storage has never been drawn down to reach dead pool (which is approximately 100,000 acre-feet); the lowest storage level on record was 147,000 acre-feet at the end of September 1977. However, the BDCP Model predicts that, under climate change, the reservoir will be about 100,000 acre-feet or about 30% lower than its historical low in 10% of years. Some municipalities, such as the city of Folsom, are entirely dependent on reservoir releases for drinking water. Reaching dead pool would cut municipal deliveries below the level required to maintain public health and safety. In reality, and to avoid such dire circumstances, the CVP and SWP would likely request that regulatory agencies modify standards to conserve storage and would likely mandate conservation (or rationing) by water users. Similar steps were taken early in 2014 to reduce water diversions and reservoir releases for fishery needs and Delta requirements. Emergency measures such as these are not simulated in the model, so the</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.. 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 is recognized that operations of 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 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 (see Chapter 2 in the EIR/EIS). 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>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not</p> |

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| | | <p>BDCP Model does not reflect reasonable future operations with climate change.</p> <p>With the predicted changes in precipitation and temperature implemented in the BDCP Model, there is simply not enough water available to meet all regulatory objectives and water user demands. Yet the BDCP Model continues its normal routine and thus fails to meet its objectives. In this aspect, the BDCP Model simply does not simulate reality. For instance, if the ELT (Early Long Term) and LLT (Late Long Term) conditions actually occur, the CVP and SWP would likely adapt to protect water supplies and the environment. Examples of reactions to climate change would likely include: (1) updating operational rules regarding water releases 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 ; 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 likelihood of an appropriate operational response to climate change is supported by the many modifications to CVP and SWP operations made during the winter and spring of 2014 to respond to the current drought. The BDCP Model is, however, useful in that it reveals that difficult decisions must be made.</p> | <p>include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>Please see Master Response 19 related to Climate Change and GHG.</p> |
| 1563 | 389 | <p>[From ATT 38.1:]</p> <p>BDCP CalSim II Assumptions</p> <p>The assumptions for these runs are defined in the December 2013 Draft BDCP [Footnote 4: BDCP EIR/EIS Appendix 5A.] and associated Draft EIR/EIS.</p> <p>Each of the no action alternatives assumes the same regulatory requirements, generally representing the existing regulatory environment at the time of study formulation (February 2009), including Stanislaus ROP the National Marine Fisheries Services (NMFS) Biological Opinion (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 I.2.2, ARFM NMFS BO (June 2009) Action II.1, no SJRRP flow modeled, Vernalis SWRCB D1641 Vernalis flow and WQ and NMFS BO (June 2009) Action IV.2.1, Delta D1641 and NMFS Delta Actions including Fall X2 Fish & Wildlife Service (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.</p> <p>The modeling protocols for the recent USFWS BO (2008) and NMFS BO (2009) have been cited as being cooperatively developed by Reclamation, NMFS, U.S. Fish and Wildlife Service (USF&WS), California Department of Fish and Wildlife (CDF&W), and DWR.</p> <p>Each of the BDCP no action alternatives -- NAA, NAA-ELT, and NAA-LLT (No Action Alternative, No Action Alternative-Early Long Term, and No Action Alternative-Late Long Term) -- uses the same New Melones Reservoir and other San Joaquin River operations. At the time of these studies' formulation, the NMFS BO (June 2009) had been recently released. Also, the San Joaquin River Agreement (SJRA), including the Vernalis Adaptive Management Program (VAMP) and its incorporation into D1641 for Vernalis flow requirements were either still in force or being discussed for extension. As a component of study assumptions, the protocols of the SJRA and an implementation of the NMFS BO</p> | <p>The No Action Alternative and all of the action alternatives include the same assumptions for the New Melones Reservoir operations and Reclamation's responses to the Vernalis Adaptive Management Program based upon the continuation of existing policy and management at the time of publication of the Notice of Preparation and Notice of Determination. Because the model runs are used in a comparative manner, and not a predictive manner to develop absolute values, and because operations on the San Joaquin River are not modified in action alternatives as compared to the No Action Alternative, the effects of these two sets of operations on the San Joaquin River would not affect evaluation of the changes in Delta conditions due to implementation of the action alternatives.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | for San Joaquin River operations (including New Melones Reservoir operations) are included in the studies. These protocols, in particular the inclusion of VAMP which has now expired, are not appropriate as an assumption within either the No Action or Alternative Scenarios within a full disclosure of BDCP impacts. Although appropriate within the identification of actions, programs and protocols present at the time of the NOI/NOP, they are not representative of current or reasonably foreseeable operations. | |
| 1563 | 390 | <p>[From ATT 38.1:]</p> <p>The BDCP Model assumes no San Joaquin River Restoration Program releases in the future operation of the Friant Division of the CVP. While assuming no difference in the current and future operation of the Friant Division avoids another difference in existing and projected future hydrology of the San Joaquin River, the assumption does not recognize the existence of the San Joaquin River Restoration Program. Results of CVP and SWP operations, in particular as affected by export constraints dependent on San Joaquin River flows and their effect on OMR (Old & Middle Rivers), E/I (Export to Inflow Ratio) and I/E (Inflow to Export Ratio) diversion constraints, would be different with a different set of assumptions for San Joaquin River operations.</p> <p>The habitat restoration requirements in the 2008 FWS BO (Biological Opinion) and the 2009 NMFS BO are not included in the NAA (No Action Alternative) baselines. Although the restoration is required to be completed either with or without completion of the BDCP, the restoration was only analyzed as part of the with project scenarios.</p> | <p>The No Action Alternative and action alternatives included qualitative assumptions for the San Joaquin River Restoration Program because at the time of publication of the Notice of Preparation and Notice of Determination Reclamation was evaluating alternatives within a separate NEPA process. The No Action Alternative and action alternatives included qualitative assumptions for the San Joaquin River Restoration Program because at the time of publication of the Notice of Preparation and Notice of Determination Reclamation was evaluating alternatives within a separate NEPA process. Because the model runs are used in a comparative manner, and not a predictive manner to develop absolute values, and because operations on the San Joaquin River are not modified in the action alternatives as compared to the No Action Alternative, the effects of these two sets of operations on the San Joaquin River would not affect evaluation of the changes in Delta conditions due to implementation of action alternatives.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 391 | <p>[From ATT 38.1:]</p> <p>The benchmark study upon which the BDCP Model was built contains inaccuracies that affect the analysis.</p> <p>CalSim II is continuously being improved and refined. As the regulatory environment changes and operational and modeling staff work together to improve the model's capability to simulate actual operations, the model is continually updated. The BDCP Model relied upon a version of CalSim II that dates back to 2009, immediately after the new Biological Opinions (BiOps) from the NMFS (National Marine Fisheries Service) and the United States Fish and Wildlife Service (USFWS) significantly altered the operational criteria of the CVP and SWP. In the last 4 to 5 years, DWR, [Bureau of] Reclamation, and outside modeling experts have worked together to improve the model. Changes include better (more realistic) implementation of the new BiOps and numerous fixes to the code. Since CalSim II is undergoing continual improvements, there will always be "vintage" issues in that by the time a project report is released, the model is likely slightly out of date. However, in this case -- with the major operational changes that have occurred in the new regulatory environment -- many issues have been identified and fixed in the last 4 to 5 years that have a significant effect on model results. CalSim II modeling for the DWR 2013 Delivery Reliability Report contains numerous modeling updates and fixes that significantly alter results of the BDCP Model. A key modeling revision in the 2013 DWR modeling was fixing an error regarding artificial minimum instream flow requirements in the Sacramento River at Hood. An "artificial" minimum instream flow requirement had been specified; the requirement is artificial in that it does not represent a regulatory</p> | <p>The CALSIM II modeling used in the water impact analysis in the EIR/EIS for simulation of conditions under the Existing Conditions, No Action Alternative, and action alternatives were based on the CALSIM II model developed under the BDCP process for Alternative 1 as 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.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | requirement, but rather is a modeling technique to force upstream releases to satisfy Delta needs. | |
| 1563 | 392 | <p>[From ATT 38.1:]</p> <p>Assumptions for the "High Outflow Scenario" (HOS) are unrealistic.</p> <p>The HOS is one branch of the BDCP Decision Tree, also identified as Alternative 4, operational scenario H4 in the DEIR/EIS. The HOS requires additional water (Delta outflow) during certain periods in the spring, in excess of the current regulatory requirements. The BDCP Model assumes that if the required additional Delta outflow cannot be met by reducing exports, this increased Delta outflow will be met by releases made by the SWP's Oroville Reservoir. The assumptions regarding how much water to release from Oroville to attempt to meet the proposed regulations and how much and when to refill Oroville are unrealistic.</p> <p>According to the Draft EIR/EIS [Footnote 8: Draft EIR/EIS, Appendix 5A-C, Table C-13-20-2], the HOS will reduce SWP south of Delta water deliveries for municipal and industrial (M&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&I and agricultural water users will drop 17% below the level that they would receive without the BDCP. In other words, according to the BDCP Model results SWP Contractors would get less water than they would otherwise get without BDCP.</p> <p>CVP and SWP obligations for providing flow to satisfy Delta outflow requirements is described in the Coordinated Operations Agreement (COA). Because the CVP and SWP share responsibility for meeting required Delta outflow based on specific sharing in the agreement, it is not reasonable to conclude that CVP water supplies would increase an average of 70 TAF while SWP water supplies decrease on average of 100 TAF under the HOS. 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. It appears, through recent public discussions regarding the HOS 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 sources. However, this approach is unrealistic. During most of the spring, 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>Under Alternative 4 H4 evaluated in the 2013 Draft EIR/EIS, the SWP would provide the additional Delta outflow outside of COA (as described in Appendix 5A, Section B, in the Draft EIR/EIS). This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, Modeling Results.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Under Alternative 4A water to meet the Delta outflow objective would only be made available through reductions in Delta exports and not increased releases from Lake Oroville or any other upstream reservoir.</p> |
| 1563 | 393 | <p>[From ATT 38.1:]</p> <p>San Luis Reservoir operational assumptions produce results that are inconsistent with real world operations.</p> | <p>The effects of modified release patterns and changes in the storage conditions at San Luis Reservoir on the river temperatures are evaluated in Chapter 11 in the EIR/EIS.</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</p> |

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| | | <p>San Luis Reservoir (SLR) is an off-stream reservoir located south of the Delta and jointly owned and operated by CVP and SWP. The reservoir is used to store water that is exported from the Delta when available and used to deliver water to CVP and SWP Contractors when water demands exceed the amount of water that can be pumped from the Delta. The decision of when to move water that is stored in upstream reservoirs, such as Shasta, Folsom, or Oroville, through the Delta for export to fill SLR is based on the experience and expert judgment of the CVP and SWP operators.</p> <p>CalSim II attempts to simulate the expert judgment of the operators by imposing artificial operating criteria; the criteria are artificial in the sense that they are not imposed by regulatory or operational constraints but rather imposed as a tool to simulate expert judgment. One such artificial operating criteria is the SLR target storage level: CalSim II attempts to balance upstream Sacramento Basin CVP and SWP reservoirs with storage in SLR by setting artificial target storage levels in SLR, such that the CVP and SWP will release water from upstream reservoirs to meet target levels in SLR. The artificial target storage will be met as long as there is ability to convey water (under all regulatory and physical capacity limits) and as long as water is available in upstream reservoirs. SLR target storage criteria are also sometimes described in section 4.2 as the "San Luis rule-curve".</p> <p>In the BDCP Model, CVP and SWP reservoir operating criteria for Alternative 4 H3 ELT (Early Long Term) differ from the corresponding without project scenario (e.g. NAA-ELT (No Action Alternative-Early Long Term)). The difference in criteria and result is primarily driven by changes to the artificial constraint used to determine when to fill SLR: the SLR target storage. In Alternative 4 H3 ELT, SLR target storage is set very high in the spring and early summer months, and then reduced in August and set to SLR dead pool from September through December. This change in SLR target storage relative to the no action alternative causes upstream reservoirs to be drawn down from June through August and then recuperate storage by cutting releases in September. This change to the artificial operating criteria SLR target storage causes changes in upstream cold water pool management and affects several resource areas.</p> <p>In addition to changes in upstream storage conditions, changes in SLR target storage cause SLR storage to drop below a water supply concern level (300,000 acre-feet) in almost 6 out of every 10 years under ELT conditions and more than 7 out of every 10 years under LLT (Late Long Term) conditions for Alternative 4 H3. When storage in SLR drops below this 300,000 acre-foot level, algal blooms in the reservoir often cause water quality concerns for drinking water at Santa Clara Valley Water District. The change in SLR target storage also causes SLR levels to continue to drop and reach dead pool level for the SWP in 4 out of every 10 years and also dead pool level for the CVP in 1 out of every 10 years under the ELT conditions.</p> <p>Reaching dead pool level in SLR creates shortages to water users south of the Delta. Although some delivery shortages are due to California Aqueduct capacity constraints, the largest annual delivery shortages are a result of inappropriately low SLR target storage. Average annual Table A shortages due to artificially low SLR storage levels increased from 3 TAF in the NAA-ELT scenario to 35 TAF in the Alt4-ELT scenario. Such shortages occurred in 2% of simulated years in the NAA-ELT scenario and 23% of years in the Alt4-ELT scenario. In addition to the inability to satisfy Table A allocations, low storage levels cause loss of SWP Contractors' Article 56 water stored in SLR. Average annual</p> | <p>to emulate judgment 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 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.</p> <p>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 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 4, the San Luis Reservoir storage conditions are also affected by the restrictive south Delta export operations in October.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>In Alternative 4A, the availability of the additional export capacity in the winter and spring months compared to the No Action Alternative allows capturing winter and spring excess flows and filling of the San Luis Reservoir to a greater extent than under the No Action Alternative. This also changes the release patterns from the upstream reservoirs. However, the end-of-May and end-of-September storage conditions are similar to the No Action Alternative under Alternative 4A.</p> <p>It is recognized that future projects could change the San Luis Reservoir rule curve or assumptions related to Delta Cross Channel operations. 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> |

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| | | <p>Article 56 shortages were 43 TAF in the Alt4-ELT scenario because of low San Luis storage and 5 TAF in the NAA-ELT scenario. Low San Luis storage causes Article 56 shortages in 27% of simulated years in the Alt4-ELT scenario as compared to 5% of simulated years in the NAA-ELT. Another consequence of low storage levels in SLR is a shift in water supply benefits from Article 21 to Table A.</p> <p>In summary, the operational assumptions for SLR are unrealistic in Alternative 4 because they create problems in upstream storage reservoirs and create shortages for south of Delta water users that would not occur in the real world. In reaching this conclusion, the Reviewers met with operators from CVP and SWP to review the BDCP Model results and discussed real-time operations. The operators provided guidance in selection of superior assumptions, which results in more realistic operations in the independent model.</p> | |
| 1563 | 394 | <p>[From ATT 38.1:]</p> <p>Delta Cross Channel (DCC) operational assumptions overestimate October outflow</p> <p>When south Delta exports are low due to regulatory limits, and upstream reservoirs are making releases to meet the instream flow objectives at Rio Vista, operators have the ability to close the Delta Cross Channel (DCC) in order to reduce the required reservoir releases (by closing the DCC a greater portion of water released from the reservoirs stays in the Sacramento River to meet the Rio Vista requirements). As long as the Delta salinity standards are met, operators have indicated that they would indeed close the DCC in this manner (as was done in October and November 2013). In the BDCP Model, the DCC is not closed in this manner. The net result is that the BDCP Model overestimates outflow under such circumstances typically occurring in October.</p> <p>The overestimated outflow leads to incorrect conclusions regarding the effects of BDCP. For instance, an actual increase in fall outflow could be beneficial for the endangered fish species delta smelt (USFWS, 2008). Therefore, by overestimating outflow in October, the BDCP studies likely overestimate the benefit to delta smelt (Mount et al, 2013). Similarly, an actual increase in fall outflow would reduce salinity in the western Delta, which could be beneficial for in-Delta diversers; therefore, overestimating outflow in October artificially reduces salinity, incorrectly reducing the net impacts on in-Delta diversers.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The Delta Cross Channel assumptions in the CALSIM II model are consistent between the No Action Alternative and action alternatives in the EIR/EIS. The incremental differences that could occur under the No Action Alternative conditions and Alternative 4A would be similar with different CALSIM II model assumptions in the No Action Alternative conditions and Alternative 4A.</p> |
| 1563 | 395 | <p>[From ATT 38.1:]</p> <p>BDCP's "High Outflow Scenario" (HOS) is not sufficiently defined for analysis.</p> <p>The HOS requires additional water (Delta outflow) during certain periods in the spring. The BDCP Model 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 the COA (Coordinated Operations Agreement), as it is currently being implemented, 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 a water balancing to ensure the burden does not fall inappropriately among the projects. The BDCP Model 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 Model overstates the impacts of</p> | <p>Under Alternative 4 H4, the SWP would provide the additional Delta outflow outside of COA (as described in Appendix 5A, Section B, CALSIM II and DSM2 Modeling Simulations and Assumptions in the 2013 Draft BDCP EIR/EIS). This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, Modeling Results.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. Under Alternative 4A water to meet the Delta outflow objective would only be made available through reductions in Delta exports and not increased releases from Lake Oroville or any other upstream reservoir.</p> |

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| | | <p>increased Delta outflow on the SWP and understates the effects on the CVP.</p> <p>Furthermore, 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 HOS, 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 because during most of the spring, when BDCP proposes that Delta outflow be increased, agricultural water users are not typically 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. Releasing stored water to meet the increased Delta outflow requirements could potentially impact salmonids on the Sacramento and American River systems.</p> | |
| 1563 | 396 | <p>[From ATT 38.1:]</p> <p>Simulated operation of BDCP's dual conveyance, coordinating proposed North Delta diversion (NDD) facilities with existing south Delta diversion (SDD) facilities, is inconsistent with the project description.</p> <p>The Draft BDCP and associated Draft EIR/EIS specify criteria for how much flow can be diverted by the new NDD facilities and specify when to preferentially use either the NDD facilities or the existing SDD facilities. However, the BDCP Model contains an artificial constraint that prevents the NDD facilities from taking water as described in the BDCP project description. In addition to affecting diversions from the NDD, this artificial constraint contains errors that affect the NAA (No Action Alternative) operation. This error has been fixed by DWR and Reclamation in more recent versions of the model; however, the error remains in the BDCP Model. Additionally, the BDCP Model does not reflect the Summer operations of the SDD that are described in the Draft EIR/EIS as a feature of the BDCP project intended to prevent water quality degradation in the south Delta. The net effect of these two errors is that the BDCP Model significantly underestimates the amount of water diverted from the NDD facilities and overestimates the amount of water diverted from the SDD.</p> | <p>Alternative 4 allows for the discretion and operations flexibility available for the Delta exports in the summer months. As noted in the Tables 5-7 through 5-9 of the 2013 Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>Under Alternative 4A, total Delta exports as well as the diversions from the north of Delta and south of Delta intakes are different than under Alternative 4 in the 2013 Draft BDCP, as presented in Appendix 5A, Section C, of the Final EIR/EIS. 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 range of water quality effects under Alternative 4A as a result of these export changes are analyzed in Chapter 8 of the EIR/EIS. Please see Master Response 1 related to status of the BDCP.</p> |
| 1563 | 397 | <p>[From ATT 38.1:]</p> <p>Independent Modeling output and analysis of BDCP Effects:</p> <p>Analysis for this effort was focused on BDCP Alt 4 with existing spring and Fall X2 requirements, which corresponds to "Alternative 4 H3" in the Decisions Tree. This modeling is performed without climate change, and includes refined operating criteria for the NDD (North Delta Diversion), CVP and SWP reservoirs, DCC (Delta Cross Channel) gate closures, and water supply allocations. This modeling includes all Project features that are included in Alt 4 in the BDCP Model. The key Project features incorporated into BDCP are displayed in Figure 1 and summarized as:</p> | <p>The EIR/EIS modeling of the action alternatives 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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK's modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>The modeling for the 2013 Draft BDCP and the 2013 Draft EIR/EIS has been based on the Existing Conditions,</p> |

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| | | <p>* North Delta Diversion capacity of 9,000 cfs</p> <p>* NDD bypass flow requirements</p> <p>* 25,000 acres of additional tidal habitat</p> <p>* Notched Fremont Weir to allow more flow into Yolo Bypass</p> <p>* Additional positive Old & Middle River flow requirements</p> <p>* Removal of the San Joaquin River I/E (inflow to export) ratio (NMFS 2009)</p> <p>* Changed location for Emmaton water quality standard in SWRCB D-1641</p> <p>* Additional Sacramento River flow requirement at Rio Vista</p> <p>For the purpose of describing results of the Independent Modeling, the revised baseline scenario without climate change, originally termed No Action Alternative (NAA) in the BDCP Draft EIR/EIS, is referred to as the Future No Action (FNA) in this discussion. Additionally, in the Independent Modeling, Alternative 4 operational scenario H3 without climate change is simply referred to as "Alt 4". The results for the Independent Modeling are illustrated in the Technical Attachment. Key results are presented below.</p> <p>The change in conditions between FNA and Alt 4 is indicative of the effects of the BDCP on water supply and Delta flows. An effect of the BDCP is an anticipated increase in Delta export and corresponding decrease in Delta Outflow. Table 2 illustrates the estimated change in Delta Outflow by year type, amounting to an average annual 0.76 MAF. Table 3 illustrates the corresponding change in exports by year type, and also illustrates the estimated change in geographical source of export water. With the BDCP it is anticipated that exports from the South Delta (via through Delta conveyance) will decrease by 2.53 MAF. Exports derived from the North Delta (via the tunnels) will amount to 3.28 MAF.</p> <p>The Independent Modeling shows that implementation of the BDCP could shift a portion of the SWP exports from summer to winter and spring because the proposed NDD facilities can export water at times when the existing SDD facilities are constrained due to fishery concerns. As a result of this shift in timing, capacity is available at the SWP facilities during the summer months. The BDCP Model assumes that CVP could utilize the SWP facilities (Table 4) at any time when the CVP facilities are fully utilized; this sharing of diversion facilities is termed "joint point of diversion" or JPOD. Additional criteria to meet specific water quality and water level objectives are defined in response plans required by the State Water Board's water right decision D-1641. BDCP Model assumes that these additional criteria are met; the Independent Modeling continues this assumption without making any judgment as to whether the criteria would be met. An evaluation of this would require additional hydrodynamic modeling.</p> <p>The Independent Modeling shows higher average annual CVP carryover (end of September) storage than the NAA by about 28 TAF. During dryer years when upstream storage is lower there is an increase in carryover and during wetter years when storage is higher there are storage decreases (Table 5). Upstream SWP storage, Table 6, behaves in a similar manner as CVP storage, there are decreases in wetter years and increased in</p> | <p>No Action Alternative, and Alternative 1 models developed in April – May of 2010 (2010 models). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including the No Action Alternative and all action alternatives in the Final EIR/EIS, were continued to be based on the 2010 models allowing comparability with the baselines.</p> <p>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 modelers. This update was performed to verify if the compiled model improvements have altered the incremental changes between the Alternative 1 and the Existing Conditions and No Action Alternative 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>Reclamation, DWR and others have continued to improve the 2011 Existing Conditions and No Action Alternative models for other analyses. The majority of the changes included in the baseline model presented by MBK at the January 2014 Independent Science Board (ISB) meeting, were part of the 2011 modeling. Some of these changes cannot be part of the BDCP baselines because of when the Notice of Preparation and Notice of Intent for the EIR/EIS were issued. When Alternative 4 was modeled using the 2013 No Action Alternative model without these changes, the incremental changes in the operational results for Alternative 4 compared to the No Action Alternative were similar to the BDCP Alternative 4 results. In the presentation to the ISB, MBK's modeling did not include climate change and sea level rise effects, and were compared to the BDCP Early Long-Term (ELT) results, which included climate change and sea level rise effects.</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.</p> <p>Please also see responses to comment letter 1722 included within the Final EIR/EIS.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | <p>dryer years.</p> <p>CVP San Luis Reservoir fills in about 40% of years in Alt 4 compared to about 20% in the FNA. CVP San Luis reaches dead pool in about 25% of years in both the FNA and Alt 4. SWP San Luis Reservoir fills in about 43% of years in Alt 4 compared to about 18% in the FNA. SWP San Luis reaches dead pool in about 25% of years in Alt 4 and about 30% of years in the FNA.</p> | |
| 1563 | 398 | [ATT 38.1: att2 -- Figure 1. Map of Delta with location of key BDCP facilities and regulatory changes] | This comment describes a graph prepared by the commenter related to Delta water resources and included in the comment letter. Please see above responses to comments |
| 1563 | 399 | [ATT 38.1: att3 -- Table 2. Change in Delta outflow due to the BDCP (Alt 4 minus Future No Action) (Million Acre-Feet)] | This comment describes a table prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 397. |
| 1563 | 400 | [ATT 38.1: att4 -- Table 3. Change in quantity of water exported due to the BDCP (Alt 4 minus Future No Action) (Million Acre-Feet)] | This comment describes a table prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 397. |
| 1563 | 401 | [ATT 38.1: att5 -- Table 4. Change in quantity of CVP water exported by SWP facilities (Alt 4 minus Future No Action) (Thousand Acre-Feet)] | This comment describes a table prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 397. |
| 1563 | 402 | [ATT 38.1: att6 -- Table 5. Change in CVP upstream carryover storage (Alt 4 minus Future No Action) (Thousand Acre-Feet)] | This comment describes a table prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 397. |
| 1563 | 403 | [ATT 38.1: att7 -- Table 6. Change in SWP upstream carryover storage (Alt 4 minus Future No Action) (Thousand Acre-Feet)] | This comment describes a table prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 397. |
| 1563 | 404 | <p>[From ATT 38.1:]</p> <p>Based on the Independent Modeling, the amount of water exported (diverted from the Delta) may be approximately 200 thousand acre-feet (TAF) per year higher than the amount disclosed in the Draft EIR/EIS. This total represents:</p> <ul style="list-style-type: none"> - approximately 40 TAF/yr more water diverted and delivered to the SWP south of Delta contractors, and - approximately 160 TAF/yr more water diverted and delivered to the CVP south of Delta contractors. | <p>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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK's modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>As noted in the Tables 5-7 through 5-9 of the EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the long-term average Delta exports under Alternative 4 remain similar or increase compared to the No Action Alternative. With respect to the reference to the impact designation in the EIR/EIS for WS-2, it was determined that no impact designations would be developed for Water Supply changes because the true impacts occur under other environmental resources. For example, increased surface water deliveries under Water Supply is assumed to result in less groundwater pumping and less effects on groundwater conditions.</p> <p>Further, MBK's modeling compares the projected Delta exports under the No Action Alternative included in the EIR/EIS, which considers the effects of climate change and sea level rise, to a model run of No Action Alternative that does not include climate change and sea level rise effects, and includes different operational assumptions than the EIR/EIS.</p> |

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| | | | <p>Please see Master Response 30.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 405 | <p>[From ATT 38.1:]</p> <p>The BDCP Model estimates that, under the NAA ELT (No Action Alternative-Early Long Term) (without the BDCP), total average annual exports for CVP and SWP combined are estimated to be 4.73 million acre feet (MAF) and in the Independent Modeling FNA combined exports are 5.61 MAF. The BDCP Model indicates an increase in exports of approximately 540 TAF and the Independent Modeling shows an increase of approximately 750 TAF in Alt 4.</p> | <p>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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK's modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>As noted in the Tables 5-7 through 5-9 of the EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the long-term average Delta exports under Alternative 4 remain similar or increase compared to the No Action Alternative. With respect to the reference to the impact designation in the EIR/EIS for WS-2, it was determined that no impact designations would be developed for Water Supply changes because the true impacts occur under other environmental resources. For example, increased surface water deliveries under Water Supply is assumed to result in less groundwater pumping and less effects on groundwater conditions.</p> <p>Further, MBK's modeling compares the projected Delta exports under the No Action Alternative included in the EIR/EIS, which considers the effects of climate change and sea level rise, to a model run of No Action Alternative that does not include climate change and sea level rise effects, and includes different operational assumptions than the EIR/EIS.</p> <p>Please see Master Response 30.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 406 | <p>[From ATT 38.1:]</p> <p>The Independent Modeling suggests that Delta outflow would decrease by approximately 200 TAF/yr compared to the amount indicated in the Draft EIR/EIS.</p> <p>- This lesser amount of Delta outflow has the potential to cause greater water quality and supply impacts for in-Delta beneficial uses and additional adverse effects on species.</p> | <p>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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4</p> |

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| | | To determine the potential effects of the reduced amount of outflow, additional modeling is needed using tools such as DSM2. | <p>assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK’s modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>Further, as noted in the Tables 5-7 through 5-9 of the 2013 Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting Delta outflow will be different under Alternative 4 compared to the No Action Alternative. The effects of changes in Delta outflow on water quality, fisheries and other environmental resources under Alternative 4 are analyzed in other resource chapters of the EIR/EIS.</p> <p>MBK’s modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to EIR/EIS modeling. As noted in the Tables 5-7 through 5-9 of the 2013 Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting north versus south Delta exports will be different under Alternative 4 compared to the No Action Alternative. The range of water quality effects under Alternative 4 as a result of these export changes are analyzed in Chapter 8 of the EIR/EIS.</p> <p>Please see Master Response 30.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 407 | <p>[From ATT 38.1:]</p> <p>The BDCP Model does not accurately reflect the location of the diversions that the SWP and CVP will make from the Delta.</p> <ul style="list-style-type: none"> - When the errors in the model are corrected, it reveals that the North Delta intakes could divert approximately 680 TAF/yr more than what was disclosed in the BDCP Draft EIR/EIS, and - the amount of water diverted at the existing South Delta facilities would be approximately 460 TAF/yr less than what is projected in the BDCP Draft EIR/EIS. | <p>It appears that this comment was based on the MBK January 2014 review of project modeling. 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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK’s independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK’s modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>Further, as noted in the Tables 5-7 through 5-9 of the 2013 Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting Delta outflow will be different under Alternative 4 compared to the No Action Alternative. The effects of changes in Delta outflow on water quality, fisheries and other environmental resources under Alternative 4 are analyzed in other resource chapters of the</p> |

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| | | | <p>EIR/EIS.</p> <p>MBK's modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to EIR/EIS modeling. As noted in the Tables 5-7 through 5-9 of the 2013 Draft EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting north versus south Delta exports will be different under Alternative 4 compared to the No Action Alternative. The range of water quality effects under Alternative 4 as a result of these export changes are analyzed in Chapter 8 of the EIR/EIS.</p> <p>Please see Master Response 30.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 408 | <p>[From ATT 38.1:]</p> <p>Hydrologic modeling of BDCP alternatives using CalSim II has not been refined enough to understand how BDCP may affect CVP and SWP operations and changes in Delta flow dynamics. Better defined operating criteria for project alternatives is needed along with adequate modeling rules to analyze how BDCP may affect water operations. Without a clear understanding of how BDCP may change operations, affects analysis based on this modeling may not produce reliable results and should be revised as improved modeling is developed.</p> | <p>The EIR/EIS modeling of the action alternatives 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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different assumptions than the EIR/EIS Alternative 4 H1 through H4. The aggregate effect of the changed assumptions under MBK's modeling of Alternative 4 is resulting in increased Delta exports and a corresponding reduction in Delta outflow compared to the EIR/EIS. MBK's modeling compares the projected Delta exports under the No Action Alternative included in the EIR/EIS, which considers the effects of climate change and sea level rise, to a model run of No Action Alternative that does not include climate change and sea level rise effects, and includes different operational assumptions than the EIR/EIS. MBK's modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to EIR/EIS modeling. It should be noted that the EIR/EIS modeling is used in a comparative manner to compare conditions under the Existing Conditions and the No Action Alternative to conditions under the action alternatives in order to compare the alternatives. The results cannot be used in a predictive manner to predict absolute values.</p> <p>Please see Master Response 30 related to Modeling.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 409 | [ATT 38.2: Review of Bay Delta Conservation Program Modeling, by MBK Engineers and Daniel B. Steiner (Consulting Engineer), Technical Appendix to Attachment 1. See also | 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 |

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| | | BDCP1722-ATT 2, BDCP1633-ATT 2, and BDCP1597-ATT 6.2] | already addressed in the comment referencing the attachment or the Final EIR/EIS. |
| 1563 | 410 | [ATT 38.2: att1 -- Table 1. Scenarios used to evaluate climate change] | This comment describes a table prepared by the commenter related to climate change and included in the comment letter. Please see above responses to comments. |
| 1563 | 411 | <p>[From ATT 38.2:]</p> <p>Inflow and Reservoir Storage in the Sacramento River Basin:</p> <p>The significance of changed hydrology between the three without project baselines is illustrated in Figure 1 below. The figure illustrates the projected combined inflow of Trinity, Shasta, Oroville, and Folsom Reservoirs under the three NAA (No Action Alternative) baselines. Numerous modeling projections for climate change have been developed, and in this BDCP group of Scenarios 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 dryer years. Folsom Reservoir inflow is projected to remain about the same at the time of the NAA-ELT (No Action Alternative-Early Long Term) Scenario but decreases by the time of the NAA-LLT (No Action Alternative-Late Long Term) Scenario. The spring to winter shift in runoff is also projected for Folsom Reservoir inflow.</p> <p>If climate change resulted in such drastic inflow changes, there is argument that certain underlying operating criteria such as instream flow requirements and flood control diagrams would require change in recognition of the changed hydrology. Regarding current environmental flow requirements carried into the NAA Scenarios, we question an assumed operation that continues to attempt to meet temperature targets when flow releases are unlikely to meet the target and thus a sustainable operation plan is not possible. For example, the CVP and SWP are unlikely to draw reservoirs to dead pool as often as the models depict. The NAA-ELT and NAA-LLT model Scenarios show project reservoirs going to dead pool in 10% of years; such operation would result in cutting upstream urban area deliveries below what is needed for public health and safety in 10% of years and would lead to water temperature conditions that would likely not achieve the assumed objectives. Again in short, the Scenarios that include climate change do not provide a reasonable underlying CVP/SWP operation with a changed hydrology from which to impose a Project upon to understand how BDCP Alternatives will affect the water system and water users.</p> <p>In our opinion, the CalSim II depicted operations that incorporate climate change are not reasonably foreseeable and do not represent a likely future operation of the CVP/SWP. Although an argument is typically made that these study baselines will be used in a comparison analysis with Project Alternatives tiering from these baselines, we believe that the depicted operations do not represent credible CVP/SWP operations and we have no confidence in the results and they are inappropriate as the foundation of a Project Alternative. As such, although the modeling approach may provide a relative comparison between equal foundational operations, we are apprehensive to place much confidence in the computed differences shown between the NAA and Project Alternative Scenarios.</p> | <p>As described in Chapter 5 in 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. It is recognized that operations of 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 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. 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. 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>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 412 | [ATT 38.2: att2 -- Figure 1. Projected Inflow to Trinity, Shasta, Oroville, and Folsom Reservoirs -- NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long | This comment describes a graphic prepared by the commenter related to climate change and inflows to upstream reservoirs and included in the comment letter. Please see above responses to comments. |

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| | | Term) and NAA-LLT (No Action Alternative-Late Long Term)] | |
| 1563 | 413 | <p>[From ATT 38.2:]</p> <p>Carryover Storage in the Sacramento River Basin:</p> <p>For upstream CVP and SWP reservoirs the assumed shift of inflows due to climate change (Figure 1, see ATT 38.2: att2) along with a continuing need to satisfy exports demands significantly affects carryover storage. 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.</p> <p>Figure 2 (see ATT 38.2: att3) illustrates the typical change in carryover storage as shown for Trinity, Shasta, Oroville, and Folsom Reservoirs. The relatively high frequency (approximately 10% of time) of minimum storage occurring at CVP reservoirs illustrates our questioning of credible operations in the studies.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>Please see Master Response 37 related to storage.</p> <p>The CALSIM II model includes assumptions for long-term conditions of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The evaluation is a comparative analysis to determine the incremental differences between conditions under the action alternatives and conditions under the Existing Conditions and the No Action Alternative. The analyses were not conducted to identify specific values or to respond to short-term emergency situations, such as the ongoing drought. Separate engineering and environmental studies have been and will continue to be prepared when water quality criteria and other regulations are modified in emergencies. The No Action Alternative and all of the action alternatives include climate change and sea level rise assumptions. These changes would result in SWP and CVP operational conditions that generally would not occur because operators of the projects would make real-time decisions. For example, 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.</p> <p>As described in Chapter 5 in the EIR/EIS, the analyses assume continued implementation of existing regulatory reservoir operations. Changes in the regulatory requirements would only occur following detailed analyses, including project-specific CEQA and NEPA analyses and ESA and CESA analyses. Following adoption of changes to the 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.</p> |
| 1563 | 414 | [ATT 38.2: att3 -- Figure 2. Projected Shasta Reservoir Carryover Storage, NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term)] | This comment describes a graphic prepared by the commenter related to climate change and inflows to Shasta Lake and included in the comment letter. Please see response to Comment 413. |
| 1563 | 415 | <p>[From ATT 38.2:]</p> <p>Inflow and Carryover Storage in the San Joaquin River Basin:</p> <p>San Joaquin Valley reservoirs are depicted with an overall decrease in annual runoff with some shifting of runoff from spring to winter, but mostly just decreases in spring runoff due to a decline in snowmelt runoff during late spring. [Footnote 5: BDCP Appendix 5A.2] Figure 3 (see ATT 38.2: att4) illustrates the assumed effects of climate change upon inflow</p> | <p>The climate change assumptions were consistent across all the EIR/EIS alternatives including the No Action Alternative. As shown in the EIR/EIS, San Joaquin River operations remain unchanged under the action alternatives compared to the No Action Alternative. The error in the Millerton Lake climate-modified inflow was found to only affect Millerton Lake storage and flows in the San Joaquin River, and it had only minor impacts to the Delta and Sacramento River operations. Please see Master Response 30 related to Modeling, Master Response 4 related to Alternatives Analysis, and Master Response 37 related to Storage.</p> <p>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</p> |

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| | | <p>to Millerton Lake.</p> <p>The hydrology differences imposed in the NAA (No Action Alternative) Scenarios of the Friant Division are described above, and its appropriateness may be subject to additional debate and Alternative assumptions. However, our review found that implementation of Millerton Reservoir inflow as affected by climate change was improperly performed.</p> <p>Inflow to Millerton Reservoir in this version of CalSim is input in three separate time series for purposes of depicting the hydrology of potential upper basin reservoirs. Climate change hydrology was inconsistently incorporated at Millerton Reservoir and misapplied to the water supply and flood control operations. The result is an unrealistic operation for river releases and canal diversions. Figure 3 illustrates the projected ELT (Early Long Term) and LLT (Late Long Term) changes in Millerton Reservoir inflow incorporated in these studies. On face value of the input data, regardless of Friant Dam river release assumptions the effect of climate change at Millerton Lake will affect water deliveries.</p> <p>Evidence of the inconsistent inflow problem is shown in the result for the comparison of carryover storage of Millerton Reservoir under the NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term), and NAA-LLT (No Action Alternative-Late Long Term) Scenarios (Figure 4). Carryover storage is higher in the ELT and LLT Scenarios due to climate change effects to inflow incorporated in reservoir operations but not in the computation of water supply deliveries. Thus, water deliveries are suppressed and the reservoir ends the year with greater storage.</p> <p>CVP Water Service Contractor's water allocations are based on available CVP supplies, Figure 5 (see ATT 38.2: att7)) contains exceedance probability plots of deliveries and allocation percentages to these contractors. Table 2 (see ATT 38.2: att6) contains average annual allocation to these CVP Water Service Contractors. Water supplies to these contractors decrease in the ELT and LLT relative to NAA Conditions.</p> <p>CVP Sacramento River Settlement, San Joaquin River Exchange, and Refuge deliveries are based on Shasta Criteria and are 100% in most years and 75% in "Shasta critical" years. [Footnote 6: A "Shasta critical" year is determined when the forecasted full natural inflow into Shasta Lake is equal to or less than 3.2 million acre-feet.] Figure 6 (see ATT 38.2: att8) contains exceedance probability charts for annual water deliveries to CVP contractors whose allocations are based on Shasta Criteria. In the NAA-ELT and NAA-LLT modeling scenarios, the Sacramento River Settlement and Refuge deliveries are reduced due to water shortages that occur more often under the climate change assumptions.</p> | <p>and Area of Origin laws and requirements. These senior water rights include water rights settlement agreements with water rights holders that diverted water from the Sacramento River prior to the construction of the CVP. In accordance with conditions of the water rights issued by the State Water Resources Control Board to Reclamation for CVP operations, Reclamation must deliver water to the Sacramento River Settlement Contractors prior to operations of the CVP. The deliveries to the Sacramento River Settlement Contractors cannot be reduced further than what is allowed in the existing water rights. Changes to those water rights is not part of this project's objectives or purpose and need. Therefore, such changes are not part of the action alternatives considered in this EIR/EIS.</p> |
| 1563 | 416 | [ATT 38.2: att4 -- Figure 3. Projected Inflow to Millerton Lake -- NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term)] | This comment describes a graphic prepared by the commenter related to Millerton Lake and included in the comment letter. Please see response to Comment 415. |
| 1563 | 417 | [[ATT 38.2: att5 -- Figure 4. Millerton Reservoir Carryover Storage, NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term) Scenarios] | This comment describes a graphic prepared by the commenter related to climate change and inflows to Shasta Lake and included in the comment letter. Please see response to Comment 415. |
| 1563 | 418 | [ATT 38.2: att6 -- Table 2. CVP Water Service Contractor Allocation Summary] | This comment describes a table prepared by the commenter related to SWP and CVP water contract allocations and included in the comment letter. Please see response to Comment 412. |

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| 1563 | 419 | <p>[From ATT 38.2:]</p> <p>SWP Water Supply:</p> <p>Corresponding with the CVP operation is the projected operation of the SWP under No Action Conditions. These illustrations are shown to provide a comparison to SWP storage and exports, particularly during drought. A comparison of SWP exports to CVP SOD (South of Delta) deliveries shows that each project exports about the same amount of water during drought.</p> <p>Average annual SWP Table A water supply allocations are 62% for NAA (No Action Alternative), 61% for NAA-ELT (No Action Alternative-Early Long Term), and 57% for NAA-LLT (No Action Alternative-Late Long Term). Figure 7 (see ATT 38.2: att9) contains an exceedance probability plot summary of SWP deliveries. SWP North of Delta deliveries to the Feather River Service Area in both the ELT (Early Long Term) and LLT (Late Long Term) are less than NAA during about 10% of the time.</p> | <p>The comment is consistent with model results presented in the EIR/EIS.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 420 | [ATT 38.2: att7 -- Figure 5. CVP Water Service Contractor Delivery Summary] | This comment describes a graph prepared by the commenter related to SWP and CVP water contract deliveries and included in the comment letter. Please see response to Comment 412. |
| 1563 | 421 | [ATT 38.2: att8 -- Figure 6. CVP Contractor Delivery Summary for Contractors with Shasta Criteria Allocations] | This comment describes a graph prepared by the commenter related to CVP water contract deliveries and included in the comment letter. Please see response to Comment 412. |
| 1563 | 422 | [ATT 38.2: att9 -- Figure 7. SWP Delta Delivery Summary] | This comment describes a graph prepared by the commenter related to SWP water contract deliveries and included in the comment letter. Please see response to Comment 419. |
| 1563 | 423 | <p>[From ATT 38.2:]</p> <p>CVP/SWP Exports:</p> <p>Exports of the CVP and SWP have been projected to change due to a combination of climate change effects on water availability (primary effect), flow requirements for salinity control (sea level rise), additional in-basin water demands, and to a small extent greater export potential (DMC-CA (Delta Mendota Canal-California Aqueduct) intertie). Figure 8 (see ATT 38.2: att10) illustrates the simulation of CVP exports and combined CVP/SWP exports under NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term) Scenarios. Under NAA average annual CVP exports are about 2.24 MAF (2.18 at Jones PP) and are about 100 TAF less in the NAA-ELT Scenario and 230 TAF less in the NAA-LLT. Annual average SWP exports are about 2.61 MAF in the NAA and are 68 TAF less in the NAA-ELT and 212 TAF less in the NAA-LLT. Annual average combined CVP/SWP exports are about 4.9 MAF in the NAA modeling (Figure 9, see ATT 38.2: att11) and about 170 TAF and 460 TAF less in the NAA-ELT and NAA-LLT respectively.</p> | <p>The comment is consistent with model results presented in the EIR/EIS.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 424 | [ATT 38.2: att10 -- Figure 8. CVP Exports at Jones Pumping Plant, NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term)] | This comment describes a graph prepared by the commenter related to CVP exports and included in the comment letter. Please see response to Comment 423. |
| 1563 | 425 | [ATT 38.2: att11 -- Figure 9. Total CVP/SWP Exports, NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term)] | This comment describes a graph prepared by the commenter related to SWP and CVP exports and included |

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| | | Term)) | in the comment letter. Please see response to Comment 423. |
| 1563 | 426 | <p>[From ATT 38.2:]</p> <p>Joint Point of Diversion:</p> <p>The NAA Alternatives do not make use of Joint Point of Diversion (JPOD), however CVP water is pumped at Banks to satisfy the Cross Valley Canal (CVC) contracts. Figure 10 shows annual Banks wheeling for CVC for the NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term).</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.</p> <p>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 4 related Alternatives Analysis.</p> <p>The comment is consistent with model results presented in the draft EIR/EIS. As described in Appendix 5A, Section B of the EIR/EIS, the CALSIM II assumptions only considered the Cross Valley Canal contracts under implementation of the Joint Point of Diversion.</p> |
| 1563 | 427 | [ATT 38.2: att12 -- Figure 10. Cross Valley Canal Wheeling at Banks] | This comment describes a graph prepared by the commenter related to SWP exports and included in the comment letter. Please see response to Comment 426. |
| 1563 | 428 | <p>[From ATT 38.2:]</p> <p>San Luis Reservoir Operations:</p> <p>Modeling protocols will use San Luis Reservoir to store water when available and provide supply as exports are constrained by hydrology or regulatory constraints. Figure 11 (see ATT 38.2: att13) illustrates the projected operation of San Luis Reservoir under the NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term) Scenarios. The annual maximum storage shows that the ability to fill San Luis Reservoir is somewhat similar for NAA and NAA-ELT but with less ability to fill in the NAA-LLT. The frequency of a low annual low point of San Luis Reservoir is exacerbated in the NAA-LLT Scenario. In all the Scenarios, San Luis Reservoir is heavily exercised. As currently projected, San Luis Reservoir will only fill as the result of very favorable hydrologic conditions including the availability of spill water from Friant or the Kings River system that offsets DMC (Delta Mendota Canal) water demands at the Mendota Pool.</p> | <p>The comment is consistent with model results presented in the EIR/EIS.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 429 | [ATT 38.2: att13 -- Figure 11. San Luis Reservoir Storage -- NAA (No Action Alternative), NAA-ELT (No Action Alternative-Early Long Term) and NAA-LLT (No Action Alternative-Late Long Term)] | This comment describes a graph prepared by the commenter related to San Luis Reservoir and included in the comment letter. Please see response to Comment 428. |
| 1563 | 430 | <p>[From ATT 38.2:]</p> <p>Sacramento River Temperature:</p> <p>CalSim II results, along with meteorological data, are used in temperature models that simulate reservoir temperature and river temperature. The BDCP modeling provided by DWR for review included the Sacramento River temperature model and results for the No Action and Alternatives. Each BDCP Alternative used temperature target criteria for the upper Sacramento River as is used for the Existing Conditions modeling scenario. Equilibrium temperatures, a calculated model input that approximately depicts the effective air temperature for interaction with water temperature in the model, between Shasta and Gerber are increased by an annual average of 1.6°F for the ELT (Early Long</p> | <p>The comment is consistent with model results presented in the EIR/EIS. The ability to meet water temperature criteria occur more frequently under the No Action Alternative as compared to the Existing Conditions due to climate change and future water demands that would occur with or without the project. In the drier years when these conditions occur, water primarily released for water rights holders in accordance with water rights issued by the State Water Resources Control Board.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS.</p> |

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| | | <p>Term) Scenarios and by 3.3°F for LLT (Late Long Term) Scenarios. Figure 12 (see ATT 38.2: att14) contains monthly exceedance probability charts of temperature at Bend Bridge in the Sacramento River for April through October for the Existing Conditions and NAA-ELT (No Action Alternative-Early Long Term) Scenarios. There is about a 1 degree increase in average monthly temperature for the April through October period. Figure 13 (see ATT 38.2: att15) contains similar information as Figure 12, but compares modeling results for the NAA-LLT (No Action Alternative-Late Long Term) and Existing Conditions Scenarios, there is often a 2°F increase in the NAA-LLT relative to Existing Conditions.</p> <p>The increase in equilibrium temperatures combined with decreases in storage would lead to water temperature conditions that would likely not achieve the assumed objectives. Figure 12 and Figure 13 illustrate an increase in the probability that a water temperature target of 56°F would be exceeded at Bend Bridge under both the NAA-ELT and NAA-LLT Scenarios. The probability of exceedance increases approximately 5% to 20% depending on the month for the NAA-ELT Scenario and approximately 10% to 40% for the NAA-LLT Scenario.</p> | Please see Master Response 5 regarding a status for BDCP concepts. |
| 1563 | 431 | [ATT 38.2: att14 -- Figure 12. Temperature Exceedance Sacramento River at Bend Bridge Existing, No Action Alternative, ELT (Early Long Term)] | This comment describes a graph prepared by the commenter related to Sacramento River temperature and included in the comment letter. Please see response to Comment 430. |
| 1563 | 432 | [ATT 38.2: att15 -- Figure 13. Temperature Exceedance Sacramento River at Bend Bridge Existing, No Action Alternative, LLT (Late Long Term)] | This comment describes a graph prepared by the commenter related to Sacramento River temperature and included in the comment letter. Please see response to Comment 430. |
| 1563 | 433 | <p>[From ATT 38.2:]</p> <p>Conclusions regarding Climate Change Assumptions and Implementation:</p> <p>In examining the possible effects of climate change, it is not appropriate to assume that current project operations will remain static and not respond to climate change. The BDCP's simplistic approach of assuming a linear operation of the CVP and SWP produces results that are not useful for dealing with the complex problem of climate change because it does not reflect the way in which the CVP and the SWP would actually operate whether or not the BDCP is implemented. Reviewers recommend a sensitivity analysis be conducted to develop a better understanding of the range of possible responses to climate change by the CVP and SWP, and the regulatory structures that dictate certain project operations.</p> <p>Including 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 for flood protection; (2) during severe droughts, emergency drought declarations could call for mandatory conservation; 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</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.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | <p>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 the any CalSim II Model that includes climate change.</p> | |
| 1563 | 434 | <p>[From ATT 38.2:]</p> <p>Description of the BDCP Project:</p> <p>At the time of review, this Alternative was coined Alt 4 and represented a dual conveyance facility. The two DWR analyses reviewed were identified as:</p> <p>* Alt 4 (dual conveyance) -- ELT (Early Long Term)</p> <p>The same system demands and facilities as described in the NAA-ELT (No Action Alternative-Early Long Term) with the following primary changes: three proposed North Delta Diversion (NDD) intakes of 3,000 cfs each; NDD bypass flow requirements; additional positive OMR (Old & Middle River) flow requirements and elimination of the San Joaquin River I/E ratio and the export restrictions during VAMP; modification to the Freemont 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); movement of the Emmaton salinity standard; redefinition of the EI ratio; and removal of current permit limitations for the south Delta export facilities. Set within the ELT environment.</p> <p>* Alt 4 (dual conveyance) -- LLT (Late Long Term)</p> <p>The same as the previous Scenario except established in the LLT environment.</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 CalSim II files contained a set of studies evaluating the projected operation of a specific version of such a facility. The Alternative was imposed on two baselines: the NAA-ELT scenario and the NAA-LLT (No Action Alternative-Late Long Term) scenario.</p> <p>The changes (benefits or impacts) of the operation due to Alt 4 are highly dependent upon the assumed operation of not only the BDCP facilities and the changed regulatory requirements associated with those facilities, but also by the assumed integrated operation of the CVP and SWP facilities. The modeling of the NAA (No Action Alternative) Scenarios introduced a significant change in operating protocols suggested primarily for reaction to climate change. We consider the extent of the reaction not necessarily representing a likely outcome, and thus have little confidence that the NAA baselines are a "best" (or even valid) representation of a baseline from which to compare an action</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The 2013 Draft EIR/EIS action alternatives proposed moving the compliance location for salinity under the State Water Resources Control Board Decision 1641 on the Sacramento River at Emmaton to Three-Mile Slough. In the RDEIR/SDEIS and Final EIR/EIS, the Proposed Project (Alternative 4A) and Alternatives 2D and 5A were modified in response to public and agency input to not re-locate the compliance location from Emmaton. In addition, habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative as well as Alternatives 4A, 2D, and 5A in the RDEIR/SDEIS and Final EIR/EIS.</p> |

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| | | Alternative. However, a comparison review of the Alternative to the NAA baselines illuminates operational issues in the BDCP modeling and provides insight as to where benefits or impacts may occur as additional studies are provided. | |
| 1563 | 435 | <p>[From ATT 38.2:]</p> <p>BDCP's Alternative 4 has four possible sets of operational criteria, termed the Decision Tree, that differ based on the "X2" standards [Footnote 7: X2 is a salinity standard that requires outflows sufficient to attain a certain level of salinity at designated locations in the Delta at certain times of year.] that they contemplate:</p> <ul style="list-style-type: none"> * Low Outflow Scenario (LOS), otherwise known as operational scenario H1, assumes existing spring X2 standard and the removal of the existing fall X2 standard; * High Outflow Scenario (HOS), otherwise known as H4, contemplates the existing fall X2 standard and providing additional outflow during the spring; * Evaluated Starting Operations (ESO), otherwise known as H3, assumes continuation of the existing X2 spring and fall standards; * Enhanced spring outflow only (not evaluated in the December 2013 Draft BDCP), scenario H2, assumes additional spring outflow and no fall X2 standards. <p>While it is not entirely clear how the Decision Tree would work in practice, the general concept is that the prior to operation of the new facility, implementing authorities would select the appropriate 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 our analysis, we reviewed the HOS (or H4) scenario because the BDCP [Footnote 8: Draft BDCP, Chapter 3, Section 3.4.1.4.4] indicates that the initial permit will 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. We reviewed the model code and discussed the operations 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. [Footnote 9: August 7, 2013 meeting with DWR, Reclamation, and CH2M HILL] In subsequent discussions, DWR and Reclamation have suggested that the additional water may be purchased from other water users. However, the actual source of water for the additional outflow has not been defined. Since the BDCP modeling assumes that SWP bears the majority of the responsibility for meeting the additional outflow, yet this is not how the project will be operated in reality, our review 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> | <p>Under Alternative 4 H4 in the 2013 Draft EIR/EIS, the SWP would provide the additional Delta outflow outside of Coordinated Operations Agreement (as described in Appendix 5A, Section B, of the Draft EIR/EIS). This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, of the Draft EIR/EIS.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. In the Final EIR/EIS, the fall Delta outflow would be guided by Fall X2 as described in the 2008 USFWS biological opinion and spring Delta objectives would be met through reductions in Delta exports and not through specific releases from upstream reservoirs. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 436 | <p>[From ATT 38.2:]</p> <p>High Outflow Scenario (HOS or H4) Results:</p> <p>In Alt 4-ELT (Early Long Term) H4 Feather River flows during wetter years are increased</p> | <p>Under Alternative 4 H4, the SWP would provide the additional releases from Lake Oroville to increase spring Delta outflow, and this release would be considered not to be under the COA (as described in Appendix 5A, Section B, in the 2013 Draft EIR/EIS). This would result in reductions in SWP water contract deliveries as</p> |

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| | | <p>more than 3,000 cfs in April and May and then decreased in most year types during July and August, while September flow is only decreased in wetter years. Figure 14 (see ATT 38.2: att16) shows average monthly change in Feather River flow by water year type. Accompanying the changes in Feather River flow are changes in Oroville Reservoir storage levels, Figure 15 (see ATT 38.2: att17) contains average monthly changes in Oroville storage. Alt4-ELT H4 end of June storage in Oroville during wetter years is about 480 TAF lower than the NAA-ELT while critical year storage is about 400 TAF higher. Counter to the reduction in Oroville storage, CVP average upstream carryover storage increases about 80 TAF and critical year increases by 380 TAF. Figure 16 (see ATT 38.2: att18) contains average monthly changes in Delta outflow, increases in Feather River spring time flows are generally not used to increase Delta outflow, but are allowed to support increases in Delta exports.</p> <p>Figure 17 (see ATT 38.2: att19) displays changes in average monthly Delta exports, there are increases when diverting higher upstream spring releases in wetter years, while there are decreases during summer months in most years. Figure 18 (see ATT 38.2: att20) contains an average annual summary of project deliveries, total CVP deliveries increase by about 70 TAF while SWP deliveries decrease by about 100 TAF. Dryer year SWP deliveries decrease by 250 to 400 TAF, while wet year deliveries increase by 200 TAF. Total CVP deliveries increase in wetter years by exporting increased releases from Oroville.</p> <p>The overall effect of the HOS appears to be increases in Oroville releases that support both 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 dryer 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> <p>CVP and SWP obligation for providing flow to satisfy Delta outflow requirements is described in the Coordinated Operations Agreement (COA). Because the CVP and SWP share responsibility for meeting required Delta outflow based on specific sharing agreement, it doesn't seem reasonable that CVP water supplies would increase while SWP water supplies decrease under this Alternative. 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 may cause adverse environmental impacts.</p> | <p>indicated in Appendix 5A, Section C, in the 2013 Draft EIR/EIS.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. In the Final EIR/EIS, the fall Delta outflow would be guided by Fall X2 as described in the 2008 USFWS biological opinion and spring Delta objectives would be met through reductions in Delta exports and not through specific releases from upstream reservoirs. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 437 | [ATT 38.2: att16 -- Figure 14. Changes in Feather River Flow, Alt 4 H4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Feather River and included in the comment letter. Please see response to Comment 436. |
| 1563 | 438 | [ATT 38.2: att17 -- Figure 15. Changes in Oroville Storage, Alt 4 H4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Feather River and included in the comment letter. Please see response to Comment 436. |
| 1563 | 439 | [ATT 38.2: att18 -- Figure 16. Changes in Delta Outflow, Alt 4 H4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Feather River and included in the comment letter. Please see response to Comment 436. |
| 1563 | 440 | [ATT 38.2: att19 -- Figure 17. Changes in Delta Export, Alt 4 H4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Feather River and included in the comment letter. Please see response to Comment 436. |

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| 1563 | 441 | [ATT 38.2: att20 -- Figure 18. Changes in CVP and SWP Deliveries, Alt 4 H4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to SWP and CVP deliveries and included in the comment letter. Please see response to Comment 436. |
| 1563 | 442 | <p>[From ATT 38.2:]</p> <p>North Delta Diversion Intakes:</p> <p>Sacramento River flow below the North Delta Diversion (NDD) must be maintained above the specified bypass flow requirement, therefore the NDD rates are limited to the Sacramento River flow above the bypass requirement. Due to an error in CalSim II that specifies an unintended additional bypass requirement, modeling performed for the BDCP EIR/EIS often bypasses more Sacramento River flow than is specified in the BDCP project description. This error has been fixed in the most recent public releases of CalSim II, but BDCP modeling has not been updated to reflect these fixes. Figure 19 (see ATT 38.2: att21) contains exceedance probability plots showing the Sacramento River required bypass, Sacramento River bypass flow, NDD, and excess Sacramento River flow to the Delta as modeling for BDCP. As can be seen in Figure 19, the bypass flow is always above the bypass requirement in July and August. The BDCP version of CalSim sets a requirement for Sacramento River inflow to the Delta needed to satisfy all Delta flow, quality, and export requirements, this requirement should be removed when modeling the NDD.</p> | <p>The comment is consistent with model results presented in the EIR/EIS. The ability to meet water temperature criteria occur more frequently under the No Action Alternative as compared to the Existing Conditions due to climate change and future water demands that would occur with or without the project. In the drier years when these conditions occur, water primarily released for water rights holders in accordance with water rights issued by the State Water Resources Control Board.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 443 | [ATT 38.2: att21 -- Figure 19. NDD, Bypass Requirement, Bypass Flow, and Excess Sacramento R. flow for Alt 4-ELT (Early Long Term)] | This comment describes a graph prepared by the commenter related to Sacramento River near the north Delta diversions and included in the comment letter. Please see response to Comment 442. |
| 1563 | 444 | <p>[From ATT 38.2:]</p> <p>CVP/SWP Exports:</p> <p>Overall the Alt 4 will increase exports compared to the NAA-ELT (No Action Alternative-Early Long Term), with the majority of the increased exports realized by the SWP. Figure 20 (see ATT 38.2: att22) illustrates a comparison between the NAA-ELT and Alt 4-ELT (Early Long Term) of CVP and SWP exports. On average, total combined exports under Alt 4-ELT are projected to increase by 537 TAF from 4.73 MAF to 5.26 MAF compared to the NAA-ELT.</p> <p>With the addition of the North Delta Diversion (NDD) facility, the water exported dramatically shifts from South Delta diversions (SDD) to North Delta diversions. Figure 21 (see ATT 38.2: att23) illustrates the change in routing of South of Delta exports under Alt 4 compared to the NAA-ELT. On average, export through the South Delta facility are projected to decrease by 2.1 MAF and the North Delta diversions will export 2.6 MAF which includes the 2.1 MAF shifted from the South Delta facility plus the additional 537 TAF of increased exports.</p> <p>Figure 22 (see ATT 38.2: att24) contains figures for July, August, and September for Alt 4-ELT that plot NDD against SDD. In the months of July to September SDD are occasionally very high, exceeding 14,000 cfs in July, with minimal NDD. This occurs due to outdated model code that imposes an instream flow requirement in Sacramento River flow below Hood in excess of the bypass criteria prescribed in the BDCP. There are numerous occurrences when bypass flows prescribed in the BDCP are exceeded and SDD are higher</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The initial portion of the comment related to the CALSIM II results is consistent with model results presented in the EIR/EIS.</p> <p>In the Final EIR/EIS, the CALSIM II model was modified to simulate Alternative 4A to explicitly provide a preference for use of the south Delta intakes for up to 3,000 cfs in the summer months.</p> |

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| | | <p>than expected. On the other hand, there are also many times when NDD are above minimum pumping levels and SDD are below the BDCP prescribed 3,000 cfs threshold indicated by the green line in Figure 22. For unknown reasons, the model code requiring SDD to be greater than 3,000 cfs before NDDs occur from July through September is deactivated in the BDCP modeling of this Alternative.</p> <p>South Delta Diversion at Banks is not limited to existing permit capacity of 6,680 cfs and pumping may reach full capacity of 10,300 cfs in July, August, and September. Figure 23 (see ATT 38.2: att25) contains exceedance probability charts of South Delta Diversion at Banks for July, August, and September. The chart for July shows SDD at Banks exceeding existing permit capacity 20% of years, in August this occurs in about 7% of years. There are South Delta diversions at Banks 25% of the time in September while diversions from the Sacramento River may range from 2,500 cfs to 7,500 cfs.</p> <p>Generally, exports increase during winter and spring months due to the ability to avoid fishery concerns by diverting at the North Delta rather than South Delta.</p> | |
| 1563 | 445 | [ATT 38.2: att22 -- Figure 20. Change in CVP (Jones) and SWP (Banks) Exports (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to SWP and CVP exports and included in the comment letter. Please see response to Comment 444. |
| 1563 | 446 | [ATT 38.2: att23 -- Figure 21. Change in Conveyance Source of Exports (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to SWP and CVP exports and included in the comment letter. Please see response to Comment 444. |
| 1563 | 447 | [ATT 38.2: att24 -- Figure 22. Alt 4-ELT (Early Long Term) North Delta Diversion Versus South Delta Diversion for July, August, and September] | This comment describes a graph prepared by the commenter related to SWP and CVP exports and included in the comment letter. Please see response to Comment 444. |
| 1563 | 448 | [ATT 38.2: att25 -- Figure 23. South Delta Diversion at Banks] | This comment describes a graph prepared by the commenter related to SWP exports and included in the comment letter. Please see response to Comment 444. |
| 1563 | 449 | <p>[From ATT 38.2:]</p> <p>Delta Outflow:</p> <p>Figure 24 (see ATT 38.2: att26) illustrates a comparison of Delta outflow between the NAA-ELT (No Action Alternative-Early Long Term) and Alt 4-ELT (Early Long Term). Decreases in Delta outflow are the result of the CVP and SWP ability to increase Delta exports in Alt 4-ELT. The apparent increase in Delta outflow in October is partially due to additional export restrictions though Old & Middle River flow requirements. However, the increase in October Delta outflow is also due to an unrealistic operation of the Delta Cross Channel. The additional export restrictions cause the flow standards imposed at Rio Vista to be the controlling point in CVP and SWP operations; the water quality standards are all being met and do not require flows above the amount needed to satisfy the Rio Vista standard. Meeting the Rio Vista flow standards without closing the Delta Cross Channel gate results in releasing more water from upstream reservoirs than would otherwise be necessary. This occurs because a certain amount of the water released to meet the Rio Vista flow standards would flow into the Central Delta at location of the Delta Cross Channel gate. This water would not make it to Rio Vista and therefore would not be counted towards meeting the Rio Vista flow standards. However, due to the BDCP model's assumed restrictions on exports at this time, this water could not be pumped from the South Delta facilities and thus ends up as "extra" Delta outflow. By closing the</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | Delta Cross Channel gate, the operators would assure that all of the water released to meet the Rio Vista flow standards would be counted towards those standards. The BDCP model's assumptions that the Delta Cross Channel gate would not be closed are not practical or a sensible operation as the operators confirmed they would close the gate during these conditions to avoid the unnecessary loss of water supplies (as was done in October and November 2013). The assumption in the BDCP model to maintain the gate in the open position causes it to overstate the amount of Delta outflow. | |
| 1563 | 450 | [ATT 38.2: att26 -- Figure 24. Delta Outflow Change (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 449. |
| 1563 | 451 | <p>[From ATT 38.2:]</p> <p>CVP/SWP Reservoir Carryover Storage:</p> <p>CVP/SWP reservoir operating criteria in the Alt4-ELT (Early Long Term) scenario differs from the NAA-ELT (No Action Alternative-Early Long Term) scenario. This difference is primarily driven by changes in both CVP and SWP San Luis Reservoir target storage. CalSim II balances upstream Sacramento Basin CVP and SWP reservoirs with storage in San Luis Reservoir by setting target storage levels in San Luis Reservoir. CalSim II will release water from upstream reservoirs to meet target levels in San Luis Reservoir and the target storage will be met as long as there is capacity to convey water and water is available in upstream reservoirs. In Alt 4 the San Luis Reservoir target storage is set very high in the spring and early summer months, and then reduced in August and set to San Luis Reservoir dead pool from September through December. This change in San Luis target storage relative to the NAA (No Action Alternative) causes upstream reservoirs to be drawn down from June through August and then recuperate storage relative to the NAA by cutting releases in September; Alt 4 upstream storage then remains close to the NAA during fall months. These operational criteria cause changes in upstream cold water pool management and affect several resource areas. Figure 25 (see ATT 38.2: att27), Figure 26 (see ATT 38.2: att28), Figure 27 (see ATT 38.2: att29), and Figure 28 (see ATT 38.2: att30) contain exceedance charts for carryover storage and average monthly changes in storage by Sacramento Valley Water Year Type for North of Delta CVP and SWP reservoirs.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 452 | <p>[From ATT 38.2:]</p> <p>San Luis Reservoir Operations:</p> <p>In addition to changes in upstream storage conditions, changes in San Luis Reservoir target storage cause San Luis Reservoir storage to reach dead pool in many years with subsequent SOD (South of Delta) delivery shortages. Although some delivery shortages are due to California Aqueduct capacity constraints, the largest annual delivery shortages are a result of inappropriately low target storage levels. Average annual Table A shortages due to artificially low San Luis reservoir storage levels increased from 3 TAF in the NAA-ELT (No Action Alternative-Early Long Term) scenario to 35 TAF in the Alt4-ELT (Early Long Term) scenario. (Shortages due only to a lack of South of Delta conveyance capacity were not included in these averages.) Such shortages occurred in 2% of simulated years in the NAA-ELT scenario and 23% of years in the Alt4-ELT scenario. In addition to the inability to satisfy Table A allocations, low storage levels cause loss of SWP contractors'</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</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 judgment 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 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</p> |

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| | | Article 56 water stored in San Luis Reservoir. Average annual Article 56 shortages were 43 TAF in the Alt4-ELT scenario because of low San Luis storage and 5 TAF in the NAA-ELT scenario. Low San Luis storage causes Article 56 shortages in 27% of simulated years in the Alt4-ELT scenario as compared to 5% of simulated years in the NAA-ELT. Another consequence of low storage levels in San Luis Reservoir is a shift in water supply benefits from Article 21 to Table A. As seen in Figure 29 (see ATT 38.2: att31) and Figure 30 (see ATT 38.2: att32) San Luis Reservoir storage fills more regularly in the Alt 4-ELT scenario, but is exercised to a lower point more often. | 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 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 4 and Alternative 4A, the San Luis Reservoir storage conditions are also affected by the restrictive south Delta export operations in October. |
| 1563 | 453 | [ATT 38.2: att27 -- Figure 25. Trinity Reservoir Carryover Storage and Average Monthly Changes (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)) in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Trinity Lake and included in the comment letter. Please see response to Comment 451. |
| 1563 | 454 | [ATT 38.2: att28 -- Figure 26. Shasta Reservoir Carryover Storage and Average Monthly Changes (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)) in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Shasta Lake and included in the comment letter. Please see response to Comment 451. |
| 1563 | 455 | [ATT 38.2: att29 -- Figure 27. Oroville Reservoir Carryover Storage and Average Monthly Changes (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)) in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Lake Oroville and included in the comment letter. Please see response to Comment 451. |
| 1563 | 456 | [ATT 38.2: att30 -- Figure 28. Folsom Reservoir Carryover Storage and Average Monthly Changes (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)) in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Folsom Lake and included in the comment letter. Please see response to Comment 451. |
| 1563 | 457 | [ATT 38.2: att31 -- Figure 29. Federal Share of San Luis Reservoir (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to San Luis Reservoir and included in the comment letter. Please see response to Comment 452. |
| 1563 | 458 | [ATT 38.2: att32 -- Figure 30. State Share of San Luis Reservoir (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to San Luis Reservoir and included in the comment letter. Please see response to Comment 452. |
| 1563 | 459 | [From ATT 38.2:] CVP Water Supply: The changes in water supply to CVP customers, based on customer type and water year type is shown in Table 3 (see ATT 38.2: att33). Alt 4-ELT (Early Long Term) shows an average increase of approximately 109,000 AF of delivery accruing to CVP customers with CVP SOD (South of Delta) agricultural contractors receiving most of the benefit. Changes in Sacramento River Settlement contract deliveries are not an anticipated benefit of the BDCP, increases in these deliveries in Alt 4-ELT relative to the NAA-ELT (No Action Alternative-Early Long Term) are due to the shortages in the NAA-ELT from climate change that are reduced in Alt 4-ELT. Although the BDCP modeling demonstrates minor benefits to NOD (North of Delta) CVP service contractors, this increase is not an anticipated benefit of the BDCP. Consistent with modeling for the NAA-ELT Scenario, San Joaquin River Exchange | Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. The assumptions in all of the action alternatives were to not affect operations to north of Delta SWP and CVP water users as compared to the No Action Alternative. However, for the north of Delta agricultural water users, the CALSIM II model modifies SWP and CVP water deliveries based upon annual precipitation and other factors; therefore, the results, as shown in this comment, can vary between different CALSIM II model runs. |

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| | | Contractors receive full deliveries in accordance with contract provisions. Figure 31 (see ATT 38.2: att34) compares CVP Service Contract delivery of Alt 4-ELT to the NAA-ELT Scenario. Increases in delivery generally occur in below and above normal years. | |
| 1563 | 460 | [ATT 38.2: att33 -- Table 3. CVP Delivery Summary (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a table prepared by the commenter related to CVP deliveries and included in the comment letter. Please see response to Comment 459. |
| 1563 | 461 | [ATT 38.2: att34 -- Figure 31. CVP Service Contract Deliveries (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to CVP deliveries and included in the comment letter. Please see response to Comment 459. |
| 1563 | 462 | <p>[From ATT 38.2:]</p> <p>SWP Water Supply:</p> <p>Similar in nature, but larger in magnitude are changes in SWP deliveries. Figure 32 (see ATT 38.2: att36) and Table 4 (see ATT 38.2: att35) illustrate the benefits of Alt 4-ELT (Early Long Term) in comparison to the NAA-ELT (No Action Alternative-Early Long Term) Scenario. These studies show an increase in average annual SWP SOD (South of Delta) deliveries of approximately 408,000 AF, but a reduction in critical year deliveries of approximately 177,000 AF. There is an overall reduction in Article 56 deliveries. Typically in modeling and in actual SWP operations, increases in Table A correspond with increases in Article 56. The reason that Article 56 deliveries decrease overall is that insufficient quantities of water are carried over in San Luis and Article 56 contractors are subsequently shorted. SWP delivery increase is slightly less than increases in Banks export because there is increased wheeling for the Cross Valley Canal contractors with BDCP.</p> | <p>The comment is consistent with model assumptions and results presented in the EIR/EIS.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 463 | [ATT 38.2: att35 -- Table 4. SWP Delivery Summary (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a table prepared by the commenter related to SWP deliveries and included in the comment letter. Please see response to Comment 462. |
| 1563 | 464 | [ATT 38.2: att36 -- Figure 32. SWP Contract Deliveries (Alt 4-ELT (Early Long Term) and NAA-ELT (No Action Alternative-Early Long Term))] | This comment describes a graph prepared by the commenter related to SWP deliveries and included in the comment letter. Please see response to Comment 462. |
| 1563 | 465 | <p>[From ATT 38.2:]</p> <p>Freemont Weir Modifications and Yolo Bypass Inundation:</p> <p>A component of the BDCP Alternative 4 is a modification to the Freemont Weir to allow water to flow into the Yolo Bypass when the Sacramento River is at lower flow than is currently needed. Currently, the Sacramento River does not flow over the Freemont Weir until flow reaches about 56,000 cfs. With the proposed modification Sacramento River flow may enter the Yolo Bypass at much lower flow levels. Figure 33 (see ATT 38.2: att37) and Figure 34 (see ATT 38.2: att38) contains charts that compare Freemont Weir flow into the Yolo Bypass to Sacramento River flow at the weir, Figure 33 show this relationship for the NAA-ELT (No Action Alternative-Early Long Term) and Figure 34 shows this same relationship for Alt 4-ELT (Early Long Term).</p> <p>Although CalSim II is a monthly time-step model, it contains an algorithm that estimates daily flow. Therefore, average monthly flows displayed in Figure 33 shows Sacramento River entering the Yolo Bypass at flow levels less than 56,000 cfs, when this occurs water is flowing over the Freemont Weir for a portion of the month. There is a 100 cfs minimum</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. It also should be noted that habitat restoration to be completed under the 2008 USFWS and 2009 NMFS biological opinions in Suisun Marsh and Yolo Bypass, respectively, are included in the No Action Alternative analyzed in the Final EIR/EIS as well as Alternative 4A.</p> <p>The comment is consistent with model assumptions and results presented in the Draft EIR/EIS for all of the action alternatives. However, in the RDEIR/SDEIS and Final EIR/EIS, implementation of habitat restoration for the Yolo Bypass including implementation of an operable gate near Fremont Weir would be included under the No Action Alternatives and Alternatives 4A, 2D, and 5A.</p> |

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| | | <p>flow diversion from the Sacramento River diversion to the Yolo Bypass from September through June in Alt 4-ELT.</p> <p>Figure 35 (see ATT 38.2: att39) and Figure 36 (see ATT 38.2: att40) contains average monthly flow from the Sacramento River over the Freemont Weir to the Yolo Bypass for the NAA-ELT (Figure 35), average monthly difference between Alt 4-ELT and NAA-ELT (Figure 36), and the annual average difference between Alt 4-ELT and NAA-ELT (Figure 37, see ATT 38.2: att41). In the NAA-ELT scenario flow over the Freemont Weir generally occurs in wet years, this flow is extended to all year types and all months except July and August in Alt 4-ELT. The average annual increase in flow is about 430 TAF.</p> | |
| 1563 | 466 | [ATT 38.2: att37 -- Figure 33. Fremont Weir vs. Sacramento River NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Yolo Bypass flows and included in the comment letter. Please see response to Comment 465. |
| 1563 | 467 | [ATT 38.2: att38 -- Figure 34. Fremont Weir vs. Sacramento River Alt 4-ELT (Early Long Term)] | This comment describes a graph prepared by the commenter related to Yolo Bypass flows and included in the comment letter. Please see response to Comment 465. |
| 1563 | 468 | [ATT 38.2: att39 -- Figure 35. Average Fremont Weir Flow to Bypass by Water Year Type NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Yolo Bypass flows and included in the comment letter. Please see response to Comment 465. |
| 1563 | 469 | [ATT 38.2: att40 -- Figure 36. Average Fremont Weir Flow to Bypass by Water Year Alt 4 ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Yolo Bypass flows and included in the comment letter. Please see response to Comment 465. |
| 1563 | 470 | [ATT 38.2: att41 -- Figure 37. Annual Change in Fremont Weir Flow to Bypass Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)] | This comment describes a graph prepared by the commenter related to Yolo Bypass flows and included in the comment letter. Please see response to Comment 465. |
| 1563 | 471 | <p>[From ATT 38.2:]</p> <p>Sacramento River Temperature:</p> <p>Figure 38 (see ATT 38.2: att42) contains exceedance probability plots of Sacramento River temperature at Bend Bridge for the NAA-ELT (No Action Alternative-Early Long Term) and Alt 4-ELT (Early Long Term). For the months of April through July modeling shows few changes in upper Sacramento River water temperature. The Alt 4-ELT scenario shows temperature increases in August relative to the NAA-ELT. In about 75% of years modeling shows about 0.5°F increase in Alt 4-ELT relative to the NAA-ELT. The temperature models will meet inputted target temperatures until Shasta Lake cold water is depleted, this typically occurs in September. This is the likely reason temperature increases in modeling tend to occur in September.</p> | <p>This comment is consistent with modeling results presented in the EIR/EIS for many of the action alternatives.</p> <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |
| 1563 | 472 | [ATT 38.2: att42 -- Figure 38. Sacramento River Temperature at Bend Bridge NAA-ELT (No Action Alternative-Early Long Term) and Alt 4-ELT (Early Long Term)] | This comment describes a graph prepared by the commenter related to Sacramento River and included in the comment letter. Please see response to Comment 471. |
| 1563 | 473 | <p>[From ATT 38.2:]</p> <p>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 Model places most of the responsibility for meeting this new additional outflow requirement on the SWP. However, the SWP may not actually be</p> | <p>Under Alternative 4 H4, the SWP would provide the additional releases from Lake Oroville to increase spring Delta outflow, and this release would be considered not to be under the COA (as described in Appendix 5A, Section B, in the 2013 Draft EIR/EIS). This would result in reductions in SWP water contract deliveries as indicated in Appendix 5A, Section C, in the 2013 Draft EIR/EIS.</p> <p>Alternative 4 remains a viable alternative.</p> |

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| | | <p>responsible for meeting this new additional outflow requirement. This is because the COA (Coordinated Operations Agreement), as it is currently being implemented, 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 a water balancing to ensure the burden does not fall inappropriately among the projects. The BDCP Model 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 Model overstates the impacts of increased Delta outflow on the SWP and understates the effects on the CVP.</p> <p>Furthermore, after consulting with DWR and [Bureau of] 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 HOS, 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 because during most of the spring, when BDCP proposes that Delta outflow be increased, agricultural water users are not typically 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. Releasing stored water to meet the increased Delta outflow requirements could potentially impact salmonids on the Sacramento and American River systems.</p> | <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. In the Final EIR/EIS, the fall Delta outflow would be guided by Fall X2 as described in the 2008 USFWS biological opinion and spring Delta objectives would be met through reductions in Delta exports and not through specific releases from upstream reservoirs.</p> |
| 1563 | 474 | <p>[From ATT 38.2:]</p> <p>Simulated operation of BDCP's dual conveyance, coordinating proposed North Delta diversion facilities with existing south Delta diversion facilities, is inconsistent with the project description:</p> <p>The Draft BDCP and associated Draft EIR/EIS specify criteria for how much flow can be diverted by the new North Delta Diversion (NDD) facilities and specify when to preferentially use either the NDD facilities or the existing South Delta Diversion (SDD) facilities. However, the BDCP Model contains an artificial constraint that prevents the NDD facilities from taking water as described in the BDCP project description. In addition to affecting diversions from the NDD, this artificial constraint contains errors that affect the NAA (No Action Alternative) operation. This error has been fixed by DWR and Reclamation in more recent versions of the model; however, the error remains in the BDCP Model. Additionally, the BDCP Model does not reflect the Summer operations of the SDD that are described in the Draft EIR/EIS as a feature of the BDCP project intended to prevent water quality degradation in the south Delta. The net effect of these two errors is that the BDCP Model significantly underestimates the amount of water diverted from the NDD facilities and overestimates the amount of water diverted from the SDD.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>Alternative 4 and Alternative 4A allows for the discretion and operations flexibility available under real-time operations for the Delta exports in the summer months. As noted in Chapter 5 of the EIR/EIS, under Alternatives 4 H1 and 4 H4 scenarios, the resulting north versus south Delta exports will be different as compared to the No Action Alternative. The range of water quality effects under action alternatives as a result of these export changes are analyzed in Chapter 8 of the EIR/EIS.</p> <p>Please see Master Response 28 regarding operational criteria; Master Response 33 regarding adaptive management; and Master Response 44 regarding the decision tree.</p> |
| 1563 | 475 | <p>[From ATT 38.2:]</p> <p>BDCP modeling contains numerous coding and data issues that skew the analysis and conflict with actual real-time operational objectives and constraints:</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS.</p> |

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| | | <p>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 other definitive rules. This attempt to specify (i.e., code) the logic sequence and relative weighting so that a computer can simulate "expert judgment" of the human operators is a critical element to the CalSim II model. In the BDCP Model, some of the operational criteria for water supply allocations and existing facilities such as the Delta Cross Channel and San Luis Reservoir are inconsistent with real-world conditions.</p> | <p>Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>With respect to the specific reference in this comment to CALSIM II model assumptions related to the Delta Cross Channel operations, the Delta Cross Channel assumptions in the CALSIM II model are consistent between the No Action Alternative and action alternatives in the EIR/EIS. As discussed in this comment, the criteria for Sacramento River flows at Rio Vista in October would become more critical with action alternatives that include north Delta intakes. Under the future operations, there would be a balance between operations of Delta Cross Channel closure to minimize effects on upstream reservoir storage and water quality criteria. Operations under Proposed Project (Alternative 4A) would increase Delta outflow due to Old and Middle River criteria which will improve water quality as compared to the No Action Alternative. It is recognized that assumptions were used for the impact analysis in the EIR/EIS based upon modeling analyses; and that the real-time operations would provide more flexibility than the CALSIM II monthly-model time step. However, the incremental differences that could occur under the No Action Alternative conditions and Alternative 4A would be similar with different CALSIM II model assumptions in the No Action Alternative conditions and Alternative 4A.</p> <p>With respect to the specific reference in this comment to CALSIM II model assumptions related to the San Luis Reservoir operations, Alternative 4 and several other action alternatives (as included in the Draft EIR/DEIS and the RDEIR/SDEIS) included assumptions for this reservoir that resulted in end-of-September storage less than under the No Action Alternative. For Alternative 4A in the RDEIR/SDEIS and Final EIR/EIS, the San Luis Reservoir rule curve in CALSIM II was slightly modified to increase the end-of-September target level towards the No Action Alternative values to reflect historic operational range.</p> |
| 1563 | 476 | <p>[From ATT 38.2:]</p> <p>Revisions approved by DWR and Reclamation for the 2013 baseline:</p> <p>DWR and Reclamation provided CalSim II models used for the 2013 SWP Delivery Reliability Report (DRR) for use in this independent modeling effort. Changes to these models were made for this effort and provided to DWR and Reclamation, many of these changes have since been incorporated into DWR and Reclamation's model and others are under review.</p> <p>The CalSim II model used for the 2013 SWP DRR is located on DWR's web site at: http://baydeltaoffice.water.ca.gov/modeling/hydrology/CalSim/Downloads/CalSimDownloads/CalSim-IIStudies/SWPReliability2013/index.cfm. Documentation for this model is described in the report titled: "Draft Technical Addendum to the State Water Project Delivery Reliability Report 2013", also located on DWR's web site at: http://baydeltaoffice.water.ca.gov/swpreliability/. Key modeling assumptions used for this effort are consistent with the 2013 SWP DRR and are listed in Table 4 of the Technical Addendum.</p> <p>CalSim II is continuously being worked on and improved to better represent CVP and SWP operations and fix known problems. The Technical Addendum to the 2013 SWP DRR contains a description of updates and fixes that have occurred since modeling was performed for the BDCP Draft EIR/EIS. Among these changes and fixes are key items that directly affect operation of facilities proposed in BDCP Alternative 4, these items are described on page 4 of 2013 SWP DRR Technical Addendum. Key among these fixes is the correction of the Sacramento River flow requirement for Delta inflow that causes NDD</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |

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| | | <p>(North Delta Diversion) bypass to exceed requirements.</p> <p>A key component of this independent modeling effort is the development of an acceptable CalSim II Future No-Action (FNA) model scenario. The purpose for developing the FNA Scenario is to produce an operational scenario that is realistic enough to understand how changes proposed in the BDCP will affect operations. The process of developing the FNA involved research and development of CalSim II model updates and several meetings with Reclamation and DWR modeling and operations staff. In addition to changes in the FNA Scenario, CalSim II was updated to better reflect operation of the NDD, CVP and SWP reservoir balancing, DCC (Delta Cross Channel) gate operations, and CVP/SWP water supply allocations.</p> <p>Additional Revisions to CalSim II Assumptions:</p> <p>The following changes were made to the 2013 SWP DRR version of CalSim II for this effort:</p> <ul style="list-style-type: none"> * San Joaquin River Basin <ul style="list-style-type: none"> - Turned off San Joaquin River Restoration Program (SJRRP) The SJRRP will cause a change to San Joaquin River inflow to the Delta not associated with the BDCP. To avoid adding complications to the identification of BDCP export benefits the SJRRP was not incorporated into the analysis. - Tuolumne: updated time-series, lookup tables, and WRESL code - Turned off releases for SJRA (VAMP) (San Joaquin River Agreement (Vernalis Adaptive Management Plan)) * Updated Folsom flood diagram * Rice decomposition demand diversions from Feather River * Dynamic EBMUD (East Bay Municipal Utility District) diversion at Freeport * SEP1933 correction to daily disaggregated minimum flow requirements at Wilkins Slough and Red Bluff * CVP M&I (municipal and industrial) demands are updated to reflect assumptions used by Reclamation * Yuba Accord Transfer * Los Vaqueros Reservoir capacity | |
| 1563 | 477 | <p>[From ATT 38.2:]</p> <p>San Joaquin River Basin:</p> <p>BDCP modeling depicted San Joaquin River Basin operations generally consistent with the actions, programs and protocols in place at the time of NOI/NOP (Notice of Preparation/Notice of Intent) issuance. Some of those conditions are now not</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | <p>representative of current development or operations. With the exception of the assumption for the SJRRP (San Joaquin River Restoration Program), the independent modeling has revised San Joaquin River Basin operations to reflect more contemporary LOD assumptions. In future level analyses the independent modeling similarly assumes no SJRRP, but only for analysis simplicity concerning BDCP export benefits. Additional analyses may be useful in understanding effects of collectively implementing the BDCP and SJRRP.</p> <p>The San Joaquin River Basin (SJR) is depicted for current conditions, primarily affected by the operations of the Stanislaus, Tuolumne, Merced, and upper San Joaquin River tributaries. The upper San Joaquin River is currently modeled in a "pre-" SJRRP condition, consistent with the 2005 CalSim version. The FNA (Future No Action) Scenario also models the upper San Joaquin River without the SJRRP. The SJR depicts near-term operations including SWRCB D-1641 flow and water quality requirements at Vernalis met when hydrologically possible with New Melones operations. The Vernalis flow objective is set by SWRCB D-1641 February-June base flow requirements. There are no pulse flow requirements during April and May, and there is no acquired flow such as VAMP (Vernalis Adaptive Management Plan) or Merced water. D1641 Vernalis water quality requirements are set at 950/650 EC to provide an operational buffer for the requirement. New</p> <p>Melones is operated to provide RPA (Reasonable and Prudent Alternative) Appendix 2E flows as fishery releases and maintains the DO (dissolved oxygen) objective in the Stanislaus River through a flow surrogate. Stanislaus River water right holders (OID/SSJID - Oakdale Irrigation District/San Joaquin Irrigation District) are provided deliveries up to land use requirements as occasionally limited due to operation agreement (formula). CVP Stanislaus River contractors are provided allocations up to 155 TAF per year in accordance with proposed 3-level plan based on the New Melones Index (NMI). For modeling purposes during the worst drought sequence periods, CVP Stanislaus River contractors and OID/SSJID diversions are additionally cut to maintain New Melones Reservoir storage no lower than 80 TAF. Merced River is operated for Federal Energy Regulatory Commission (FERC) and Davis-Grunsky requirements, and provides October flows as a condition of Merced Irrigation District's water rights. The Tuolumne River is operated to its current FERC requirements and current water use needs and has been updated to recent conditions.</p> | <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |
| 1563 | 478 | <p>[From ATT 38.2:]</p> <p>Folsom Lake Flood Control Diagram:</p> <p>During wetter years, inflow to Folsom Lake is sufficient to keep the reservoir full while satisfying all demands downstream. When this condition occurs in actual operations, operators increase releases during summer months to maintain higher instream flows and prevent large releases in the fall to evacuate Folsom to satisfy flood control storage requirements. To prevent the model from keeping the reservoir full going into the fall months and then making large releases to comply with flood control storage requirements, the maximum allowable storage during summer months is ramped from full storage in June to flood control levels in the fall. Although this is a common modeling tool, Folsom storage level for the end of September was set too low in the SWP DRR (Delivery Reliability Report) model causing unnecessary releases and resulting in Folsom</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |

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| | | storage being lower than desired. An adjustment was made to achieve a more realistic summer drawdown for Folsom. | |
| 1563 | 479 | <p>[From ATT 38.2:]</p> <p>Feather River Rice Decomposition Demand:</p> <p>Demand for rice straw decomposition (decomp) water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period. There are approximately 110,000 acres of rice in the Feather River Service Area irrigated primarily with water diverted from Thermalito Afterbay. Although decomp water demand for the Sacramento River has been included in CalSim II since about 2006, this demand has been absent for the Feather River. Inclusion of decomp demand in the version of CalSim II used for this effort results in an increase in Feather River diversion in fall months of about 160,000 AF.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |
| 1563 | 480 | <p>[From ATT 38.2:]</p> <p>Dynamic EBMUD (East Bay Municipal Utility District) Diversion at Freeport:</p> <p>Previously the EBMUD operation was pre-determined and input to CalSim II as a time-series. The below criteria was implemented in CalSim II model code to achieve a dynamic representation of EBMUD diversion from the Sacramento River at Freeport.</p> <p>The EBMUD water service contract is unique. EBMUD's total system storage must be forecast to be below 500 TAF on October 1 for CVP water to be available under the EBMUD contract. In years when this occurs, we assume EBMUD will take the minimum of 65 TAF of CVP water or their CVP allocation (133 TAF * CVP M&I (municipal and industrial) allocations) in the first and second years of any multi-year period when CVP water is available under their contract. In the third year, EBMUD would be limited to 35 TAF of CVP water (assuming diversion of 65 TAF in years one and two) because their contract limits cumulative CVP water over three consecutive years to 165 TAF. The 65, 65, 35 TAF annual diversion pattern then repeats if water is available for four or more consecutive years under the EBMUD contract.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |
| 1563 | 481 | <p>[From ATT 38.2:]</p> <p>Wilkins Slough Minimum Flow Requirement:</p> <p>Wilkins Slough minimum flow requirements, C129_MIF, includes an adjustment for daily operations based on work with the Sacramento River Daily Operations Model (SRDOM). The flow adjustment for daily flows for September 1933 in the state variable input file appeared unreasonable in the previous model. The flow adjustment in this month was approximately 1,860 cfs and was requiring release of approximately 100 TAF out of Shasta. Review of the entire time-series of daily adjustments showed the adjustment in this month was an order of magnitude greater than in any other September in the simulation period. The year 1933 is a critically dry year, and the third of four consecutive Shasta Critical years. Historical precipitation records from the consumptive use models for</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued</p> |

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| | | the Sacramento Valley, which serves as the basis of much of the CalSim hydrology, were reviewed to ensure there was no unusual precipitation in this month that may create variations in daily flows. It was determined that this daily adjustment is in error. The daily adjustment for this time-step was set to 10 cfs, the value for August 1933. | to be based on the 2010 models allowing comparability with the baselines. |
| 1563 | 482 | <p>[From ATT 38.2:]</p> <p>CVP M&I (Municipal and Industrial) Demands:</p> <p>[Bureau of] Reclamation M&I contractor demands upstream from the Delta have not been adequately represented in CalSim II until Reclamation updated the model in 2012. A more accurate representation of CVP M&I demands, developed in 2012, was incorporated into the model for this effort.</p> | <p>Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |
| 1563 | 483 | <p>[From ATT 38.2:]</p> <p>Yuba Accord Water Transfer:</p> <p>In CalSim, Yuba Accord Water Transfers are limited to releases from New Bullards Bar Reservoir. The release is picked up at Banks Pumping Plant or stored in Oroville and Shasta for later release. The additional release from New Bullards Bar is represented in CalSim through an inflow arc. The subsequent refill of New Bullards Bar is represented in CalSim through a diversion arc. In CalSim II, refill is assumed to always occur in the winter following the transfer. However, in the SWP DRR model, there were a few years in which no transfers took place but refill still occurred in the following winter. This was fixed in the updated baseline by capping refill to the previous summer's total transfer.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |
| 1563 | 484 | <p>[From ATT 38.2:]</p> <p>Los Vaqueros Reservoir:</p> <p>Expansion of Los Vaqueros Reservoir was completed in 2012. Storage capacity was increased from 103 TAF to 160 TAF. In DWR's BDCP studies, Los Vaqueros capacity was set to 103 TAF. The independent modeling increases Los Vaqueros capacity to 160 TAF.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>The modeling for the BDCP and 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). In 2010, CALSIM II Existing Conditions and No Action Alternative models were updated in coordination with the fishery agencies to include the USFWS and NMFS biological opinions. This model formed the basis for Alternative 1 model development in 2010. All the action alternatives modeled since then, including Alternative 4, were continued to be based on the 2010 models allowing comparability with the baselines.</p> |

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| 1563 | 485 | <p>[From ATT 38.2:]</p> <p>San Luis Reservoir Rule-Curve Logic Change:</p> <p>In the independent modeling, San Luis rule-curve logic was refined for both SWP and CVP operations. San Luis rule-curve is used to maintain an appropriate balance between San Luis Reservoir storage and North of Delta reservoirs. The key considerations in formulating rule-curve are as follows:</p> <ul style="list-style-type: none"> * Ensure that sufficient water is available in San Luis Reservoir to meet contract allocations when exports alone are insufficient due to various operational constraints. * Minimize San Luis Reservoir carryover storage to low point criteria (both CVP and SWP) and Article 56 carryover (only SWP). The basic premise is to maintain Reservoir San Luis storage no higher than necessary to satisfy south of Delta obligations to avoid excessive drawdown of upstream storage. <p>In DWR's BDCP studies, there were significant shortages in Table A and Article 56 deliveries because of an improper balance between upstream and San Luis Reservoir storage. The updated SWP rule-curve logic reduces these shortages but does not eliminate them. Also, the updated CVP rule-curve logic allows for higher CVP allocations without increasing risk of shorting SOD (South of Delta) contractors.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see response to 1633-109 as to changes in the model assumptions for San Luis Reservoir operations as part of Alternative 4A in the Final EIR/EIS as compared to the model assumptions for action alternatives in the DEIR/DEIS and RDEIR/SDEIS. The project objectives and purpose and need statement for this project did not include changes to upstream or San Luis Reservoir operations. It should be noted that the CALSIM II model results in the EIR/EIS are presented as "deliveries" to the SWP and CVP water users, and not "allocations" as referred to in this comment. The "deliveries" values were presented because deliveries are frequently less than "allocation" values due to factors other than water supplies; and therefore, the "deliveries" are do not overstate the amount of water available to water users (as could occur if the "allocation" values were used.</p> <p>Please see Master Response 30.</p> |
| 1563 | 486 | <p>[From ATT 38.2:]</p> <p>Upstream Storage Release to Fill San Luis Reservoir Above Needed Supply:</p> <p>In the BDCP NAA (No Action Alternative) and the independent modeling FNA (Future No Action), the model has a priority to release excess stored water that will likely be released for flood control purposes from Shasta and Folsom storage for export at Jones Pumping Plant to storage in San Luis Reservoir in the late summer and early fall months. The purpose was to get a head start on filling San Luis Reservoir for the coming water year if there is a high likelihood of Shasta or Folsom spilling. This was an assumed CVP/SWP adaptation to the export reductions in the winter and spring months due to the salmon and smelt Biological Opinions. However, with the NDD (North Delta Diversion) facility in Alt 4, winter and spring export restrictions impact CVP exports much less and there is no longer a reason to impose this risk on upstream storage. As such, the weights, or prioritizations, of storage in Shasta and Folsom were raised so that excess water would not be released specifically to increase CVP San Luis storage Reservoir above rule-curve. This was changed in Alt 4 and not the FNA to better reflect how the system may operate under these different conditions.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. In the EIR/EIS action alternatives, including Alternative 4A, upstream reservoir operational criteria were consistent with the criteria included in the No Action Alternative. The project objectives and purpose and need statement for this Project did not include changes to upstream or San Luis Reservoir operations. Please see Master Response 30.</p> |
| 1563 | 487 | <p>[From ATT 38.2:]</p> <p>Delivery allocation adjustment for CVP SOD (South of Delta) Ag service and M&I (Municipal and Industrial) contractors:</p> <p>CVP SOD Ag service and M&I allocations are limited by both systemwide water supply (storage plus inflow forecasts) and Delta export constraints; whereas similar CVP NOD (North of Delta) allocations are dependent solely on water supply. This frequently results in SOD water service contractors receiving a lower contract year allocation than NOD</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives</p> |

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| | | water service contractors, especially under the Biological Opinion export restrictions. However, with the NDD (North Delta Diversion) facility operations as proposed under Alt 4 H3, the CVP can largely bypass these Delta export restrictions, and the export capacity constraint on CVP SOD allocations was determine to be overly conservative. Therefore, the export capacity component of CVP SOD allocations was removed in the BDCP Alternative and both SOD and NOD CVP allocations are equal and based only on water supply. | which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. In the EIR/EIS action alternatives, including Alternative 4A, allocation criteria were consistent with the criteria included in the No Action Alternative. Please see Master Response 30. |
| 1563 | 488 | <p>[From ATT 38.2:]</p> <p>Folsom/Shasta Balance:</p> <p>CVP operations were refined in the BDCP Alternative to provide maximum water supply benefits to CVP contractors while protecting Trinity, Shasta, and Folsom carryover storage in the drier years. As a whole, this was accomplished with refinements to allocation logic and San Luis rule-curve. However, in initial study runs, an imbalance between Folsom and Shasta was created; while there was a total positive impact to upstream storage in dry years, there was a negative impact to Folsom storage. This was resolved by inserting Folsom protections in the Shasta-Folsom balancing logic. With these protections, the positive carryover impacts were distributed to Trinity, Shasta, and Folsom.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. In the EIR/EIS action alternatives, including Alternative 4A, upstream reservoir operational criteria were consistent with the criteria included in the No Action Alternative. The project objectives and purpose and need statement for this project did not include changes to upstream or San Luis Reservoir operations. Please see Master Response 30.</p> |
| 1563 | 489 | <p>[From ATT 38.2:]</p> <p>North Delta Diversion (NDD) Bypass Criteria:</p> <p>The daily disaggregation method for implementing NDD bypass criteria as implemented in DWR's BDCP model was left mostly intact for the updated BDCP studies. However, there were modifications to properly fit the bypass criteria implementation within the latest CalSim operations formulation. Modifications are as follows:</p> <ol style="list-style-type: none"> 1. No NDD operations occur in cycles 6 through 9 so that Delta operations and constraints can be fully assessed without NDD interference. 2. Cycles 10 and 11 (Daily 1 and Daily 2 respectively) were added to determine NDD operations given various operational constraints including the NDD bypass criteria. 3. From July to October, bypass criteria are based on monthly average operations (no daily disaggregation). Given the controlled reservoir releases at this time and the constant bypass criteria (5,000 cfs from July to September and 7,000 cfs in October), this was determined to be a reasonable assumption. This also simplified coordination of DCC (Delta Cross Channel) gate operations with NDD in October which will be discussed later. 4. When warranted by conditions in cycle Daily 1 (cycle 10), the bypass criteria in May and June were allowed to be modeled on a monthly average basis in cycle Daily 2 (cycle 11). This allowed a reduction in the number of cycles necessary to determine the fully allowed diversion under the bypass criteria when the Delta was in balance and additional upstream releases were made to support diversions from the North Delta. | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>In the EIR/EIS action alternatives, including Alternative 4A, north Delta bypass criteria were developed by the lead agencies, USFWS, NMFS, and CDFW during the preparation of the EIR/EIS to provide protection for aquatic resources and downstream water users.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> |

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| 1563 | 490 | <p>[From ATT 38.2:]</p> <p>Delta Cross Channel Gate Reoperation in October:</p> <p>The BDCP Alt 4 results in significantly more October surplus Delta outflow as compared to the baseline. The cause of this Delta surplus at a time when the Delta is frequently in balance is a combination of proposed through-Delta export constraints (OMR (Old & Middle River) flow criteria and no through-Delta exports during the San Joaquin River October pulse period), Rio Vista flow requirements, and DCC gate operations. In DWR's BDCP studies, it was assumed that the DCC gates would be open for the entire month of October thereby requiring much higher Sacramento River flows at Hood in order to meet the Rio Vista flow requirement than if the DCC gates were closed. Whereas in the independent BDCP modeling it was assumed that the DCC gates were closed for a number of days during the month such that the 7,000 cfs NDD (North Delta Diversion) bypass criteria would be sufficient to meet the weekly average Rio Vista flow requirements. The intent was to minimize surplus Delta outflow while meeting Delta salinity standards and maintaining enough bypass flow to use the NDD facility for SOD (South of Delta) exports. This is an approximation of what is likely to occur in real-time operations under similar circumstances. Further gate closures may be possible as salinity standards allow if operators decide to preserve upstream storage at the expense of NDD diversions. This type of operation would require additional model refinements.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. The project objectives and purpose and need statement for this project did not include changes to upstream or San Luis Reservoir operations. Please see Master Response 30.</p> <p>In the EIR/EIS action alternatives, including Alternative 4A, the Delta Cross Channel assumptions in the CALSIM II model are consistent between the No Action Alternative and action alternatives in the EIR/EIS, as described in the response to 1633-28. As discussed in this comment, the criteria for Sacramento River flows at Rio Vista in October would become more critical with action alternatives that include north Delta intakes. Under the future operations, there would be a balance between operations of Delta Cross Channel closure to minimize effects on upstream reservoir storage and water quality criteria. Operations under proposed project (Alternative 4A) would increase Delta outflow due to Old and Middle River criteria which will improve water quality as compared to the No Action Alternative. It is recognized that assumptions were used for the impact analysis in the EIR/EIS based upon modeling analyses; and that the real-time operations would provide more flexibility than the CALSIM II monthly-model time step. However, the incremental differences that could occur under the No Action Alternative conditions and Alternative 4A would be similar with different CALSIM II model assumptions in the No Action Alternative conditions and Alternative 4A.</p> |
| 1563 | 491 | <p>[From ATT 38.2:]</p> <p>Wilkins Slough minimum flow requirement:</p> <p>Currently in CalSim II, relaxation of the Wilkins Slough minimum flow requirement is tied to CVP NOD (North of Delta) Ag Service Contractor allocations. This does not reflect actual operations criteria where relaxation of the flow requirement is dependent solely on storage conditions at Shasta. From the comparative analysis perspective of our CalSim planning studies, this introduces a potential problem: changes in CVP NOD Ag Service allocations can result in unrealistic changes in required flow at Wilkins Slough, and such changes in Wilkins Slough required flow can result in unrealistic impacts to Shasta storage. To bypass this problem, we assumed that the required flow at Wilkins Slough in the alternative was equal to the baseline.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>Minimum flow requirement assumptions at Wilkins Slough in the EIR/EIS modeling of the Existing Conditions, No Action Alternative and all action alternatives are consistent, as noted in the EIR/EIS Appendix 5A, Section B.</p> |
| 1563 | 492 | <p>[ATT 38.2: att43 -- Figure 39. Alt 4 Features]</p> | <p>This comment describes a graph prepared by the commenter related to the Alternative 4 in the Draft EIR/EIS and included in the comment letter.</p> <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS.</p> |

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| | | | Please see Master Response 5 regarding a status for BDCP concepts. |
| 1563 | 493 | <p>[From ATT 38.2:]</p> <p>CVP/SWP Delta Exports:</p> <p>Average annual exports at Jones pumping plant are about 170 TAF higher in the Alt 4 Scenario compared to the FNA (Future No Action) scenario, as seen in Figure 40 (see ATT 38.2: att44). Increases generally occur from January through June when Old & Middle River (OMR) criteria limit use of Jones Pumping Plant in the FNA Scenario. Decreases occur in July in drier year types because the increased ability to convey water in spring months reduces the need to convey water stored in upstream reservoirs in July. Reductions in Jones export in October are partially a function of increases in OMR flow requirements.</p> <p>Similar to export at Jones, Banks exports are generally higher from January through June because use of NDD (North Delta Diversions) allows pumping that is not possible in the FNA Scenario, as seen in Figure 41 (see ATT 38.2: att45). Banks exports are increased during summer months of wetter year types. This is due to earlier wheeling for CVP Cross Valley Canal contractors (without NDD Banks capacity is not typically available until fall in wet years) and wheeling of CVP water through Joint Point of Diversion (JPOD). CVP export at Banks is displayed in Figure 42 (see ATT 38.2: att46). In wetter years, upstream CVP reservoirs hold more water than can be exported at Jones pumping plant, this water is typically spilled in the FNA scenario. CVP water stored in upstream reservoirs can be released in July, August, and September to support south of Delta beneficial use of water through use of JPOD in Alt 4.</p> <p>Changes in total, South Delta, and North Delta exports are displayed in Figure 43 (see ATT 38.2: att47). Average annual increase in total Delta exports is about 750 TAF, the increases primarily occur in wetter year types with lesser increases in dryer years. South Delta export decreases about 2.53 MAF in Alt 4 relative to the FNA. Export through the NDD is 3.28 MAF in Alt 4, about 58% of total exports are diverted from the North Delta.</p> <p>Figure 44 (see ATT 38.2: att48) contains modeling results from Alt 4 for July, August, and September that plot NDD against SDD (South Delta Diversions) (Through Delta Export). There are many occasions when SDD are 3,000 cfs, which is due to criteria specifying that SDD during this time period need to be at least 3,000 cfs prior to diverting at the NDD facility. Although there are about six occurrences in July and three in August where the model did not satisfy this criterion, this issue has not yet been addressed for this modeling effort.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. However, the ratios between exports from north of Delta and south of Delta intakes are similar in Alternative 4A presented in the Final EIR/EIS and the MBK model. It should be noted that the project objectives and purpose and need statement for this project did not include changes to upstream or San Luis Reservoir operations. Please see Master Response 30.</p> |
| 1563 | 494 | [ATT 38.2: att44 -- Figure 40. Change in Delta Exports at Jones Alt 4 minus FNA (Future No Action)] | This comment describes a graph prepared by the commenter related to CVP exports and included in the comment letter. Please see response to Comment 493. |
| 1563 | 495 | [ATT 38.2: att45 -- Figure 41. Change in Delta Exports at Banks Alt 4 minus FNA (Future No Action)] | This comment describes a graph prepared by the commenter related to SWP exports and included in the comment letter. Please see response to Comment 493. |
| 1563 | 496 | [ATT 38.2: att46 -- Figure 42. Change in CVP Delta Exports at Banks Alt 4 minus FNA (Future No Action)] | This comment describes a graph prepared by the commenter related to CVP exports and included in the comment letter. Please see response to Comment 493. |

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| 1563 | 497 | [ATT 38.2: att47 -- Figure 43. Change in Conveyance Source of Exports (Alt 4 minus FNA (Future No Action))] | This comment describes a graph prepared by the commenter related to Delta exports and included in the comment letter. Please see response to Comment 493. |
| 1563 | 498 | [ATT 38.2: att48 -- Figure 44. Alt 4 North Delta Diversion versus South Delta Diversion for July, August, and September] | This comment describes a graph prepared by the commenter related to Delta exports and included in the comment letter. Please see response to Comment 493. |
| 1563 | 499 | <p>[From ATT 38.2:]</p> <p>Delta Outflow:</p> <p>Figure 45 (see ATT 38.2: att49) contains annual and monthly average changes in Delta outflow by water year type, average annual Delta outflow decreases about 760 TAF in the Alt 4 Scenario relative to the FNA (Future No Action) Scenario. The decrease is primarily due to increases in Delta exports, which are about 750 TAF on average. Larger decreases generally occur in January through May when exports are constrained in the FNA Scenario and in the Alt 4 Scenario the NDD (North Delta Diversion) can be used to export water. Delta outflow increases in October due to the combination of additional OMR (Old & Middle River) flow requirements that restrict exports and Sacramento River flow requirements at Rio Vista. The additional surplus Delta outflow in Alt 4 was minimized through coordination of the Delta Cross Channel Gate operations with the Rio Vista flow requirements and North Delta Diversion bypass requirements.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>Please see responses to Comments 485 through 493.</p> |
| 1563 | 500 | [ATT 38.2: att49 -- Figure 45. Changes in Delta Outflow (Alt 4 minus FNA (Future No Action))] | This comment describes a graph prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 499. |
| 1563 | 501 | <p>[From ATT 38.2:]</p> <p>Carryover Storage:</p> <p>Figure 46 (see ATT 38.2: att50), Figure 47 (see ATT 38.2: att51), Figure 48 (see ATT 38.2: att52), and Figure 49 (see ATT 38.2: att53) contain exceedance charts for carryover storage and average monthly changes in storage by Sacramento Valley Water Year Type for CVP and SWP upstream reservoirs. CVP/SWP reservoirs tend to be higher in the Alt 4 Scenario relative to the FNA (Future No Action) on an average basis. Generally, CVP/SWP reservoirs are higher in storage in dryer year types and can be lower in wetter year types.</p> <p>Ability to convey stored water from upstream CVP/SWP reservoirs to south of Delta water users is increased in Alt 4 relative to the FNA. Therefore, when upstream reservoirs are at higher storage levels more water is released to satisfy south of Delta water demands. This is the primary reason Shasta, Oroville, and Folsom tend to be lower during summer months of wetter years.</p> <p>Currently, and in the FNA Scenario, the CVP and SWP ability to export natural flow, or unstored water, is constrained due to SWRCB D-1641 and requirements in the salmon and smelt Biological Opinions. With the greater ability to export unstored water during winter and spring months in the Alt 4 Scenario, compared to FNA, there is generally a reduced reliance on stored water to satisfy south of Delta demands. The increased ability to export unstored water allows the CVP and SWP to maintain higher storage levels in upstream reservoirs during dryer year types while still maintaining south of Delta deliveries. Carryover storage in the Alt 4 Scenario tends to be higher than the FNA</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. The project objectives and purpose and need statement for this project did not include changes to upstream reservoir operational criteria, as described in Appendix 5A, Section B, of the EIR/EIS. Please see Master Response 30.</p> |

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| | | Scenario at lower storage levels, and Alt 4 storage is lower in wetter years when storage levels are higher. In the wettest of years there is enough water in the system that both scenarios have similar carryover storage conditions. | |
| 1563 | 502 | [ATT 38.2: att50 -- Figure 46. Trinity Reservoir Carryover Storage and Average Monthly Changes in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Trinity Lake and included in the comment letter. Please see response to Comment 501. |
| 1563 | 503 | [ATT 38.2: att51 -- Figure 47. Shasta Reservoir Carryover Storage and Average Monthly Changes in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Shasta Lake and included in the comment letter. Please see response to Comment 501. |
| 1563 | 504 | [ATT 38.2: att52 -- Figure 48. Oroville Reservoir Carryover Storage and Average Monthly Changes in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Lake Oroville and included in the comment letter. Please see response to Comment 501. |
| 1563 | 505 | [ATT 38.2: att53 -- Figure 49. Folsom Reservoir Carryover Storage and Average Monthly Changes in Storage by Water Year Type] | This comment describes a graph prepared by the commenter related to Folsom Lake and included in the comment letter. Please see response to Comment 501. |
| 1563 | 506 | <p>[From ATT 38.2:]</p> <p>San Luis Reservoir Operations:</p> <p>As seen in Figure 50 (see ATT 38.2: att54) and Figure 51 (see ATT 38.2: att55) below, both CVP and SWP portions of San Luis Reservoir storage fills more regularly in the Alt 4 Scenario. As described earlier in this document, low point in both CVP and SWP San Luis Reservoir is managed to satisfy water supply obligations the model makes during the spring of each year. This is a complex balance involving available upstream storage, available conveyance capacity, delivery allocations, and south of Delta demand patterns. Considering this myriad of variables, there are times when low point in San Luis Reservoir is higher in the Alt 4 Scenario than the FNA (Future No Action) Scenario and times when the opposite is true.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>With respect to the specific reference in this comment to CALSIM II model assumptions related to the San Luis Reservoir operations, Alternative 4 and several other action alternatives (as included in the DEIR/DEIS and the RDEIR/SDEIS) included assumptions for this reservoir that resulted in end-of-September storage less than under the No Action Alternative. For Alternative 4A in the Final EIR/EIS, the San Luis Reservoir rule curve in CALSIM II was slightly modified to increase the end-of-September target level towards the No Action Alternative values to reflect historic operational range. The project objectives and purpose and need statement for this Project did not include changes to San Luis Reservoir operations criteria.</p> |
| 1563 | 507 | [ATT 38.2: att54 -- Figure 50. SWP San Luis] | This comment describes a graph prepared by the commenter related to San Luis Reservoir and included in the comment letter. Please see response to Comment 506. |
| 1563 | 508 | [ATT 38.2: att55 -- Figure 51. CVP San Luis] | This comment describes a graph prepared by the commenter related to San Luis Reservoir and included in the comment letter. Please see response to Comment 506. |
| 1563 | 509 | <p>[From ATT 38.2:]</p> <p>CVP Water Supply:</p> <p>As can be seen in Table 5 (see ATT 38.2: att56), the independent modeling analysis shows an average increase of approximately 262 TAF of delivery accruing to CVP customers in the Alt 4 Scenario relative to the FNA (Future No Action) Scenario, mostly occurring to CVP SOD (South of Delta) agricultural customers. Delivery increases are greater in wetter</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | year types with lower increases in dryer years. Figure 52 (see ATT 38.2: att57) contains exceedance probability plots for CVP water service contractor deliveries and allocations. Changes in Sacramento River Settlement and San Joaquin River Exchange Contractor deliveries do not occur in the modeling analysis and are not an anticipated benefit of the BDCP. Although modeling demonstrates minor changes to NOD (North of Delta) CVP service contractors, this increase is not an anticipated benefit of the BDCP. | This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see responses to Comments 485 through 493. The project objectives and purpose and need statement for this Project specifically do not include changes to water deliveries to north of Delta SWP and CVP water users. Please see Master Response 30. |
| 1563 | 510 | [ATT 38.2: att56 -- Table 5. CVP Delivery Summary] | This comment describes a table prepared by the commenter related to CVP water deliveries and included in the comment letter. Please see response to Comment 509. |
| 1563 | 511 | [ATT 38.2: att57 -- Figure 52. CVP Water Supply Delivery and Allocation] | This comment describes a graph prepared by the commenter related to CVP water deliveries and included in the comment letter. Please see response to Comment 509. |
| 1563 | 512 | [From ATT 38.2:] SWP Water Supply: The independent analysis shows an increase in average annual SWP SOD (South of Delta) deliveries of approximately 450 TAF, but a reduction in critical year deliveries of approximately 116 TAF. Annual average Article 21 deliveries increase by about 100 TAF and Article 56 increases by about 18 TAF. Figure 53 (see ATT 38.2: att59) contains exceedance probability plots for SWP SOD deliveries for the FNA (Future No Action) and Alt 4 Scenarios, each of these plots show increases in higher delivery years. Although Table A deliveries increase in 65% of years, there are decreases in 35% of the dryer years (see Table 6, ATT 38.2: att58). | This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Overall, the results of the MBK independent modeling referenced in this comment are similar to results of the CALSIM II modeling presented in the Final EIR/EIS. Please see Master Response 30. |
| 1563 | 513 | [ATT 38.2: att58 -- Table 6. SWP Delivery Summary] | This comment describes a table prepared by the commenter related to SWP water deliveries and included in the comment letter. Please see response to Comment 512. |
| 1563 | 514 | [ATT 38.2: att59 -- Figure 53. SWP Delivery for Alt 4 and FNA (Future No Action)] | This comment describes a graph prepared by the commenter related to SWP water deliveries and included in the comment letter. Please see response to Comment 512. |
| 1563 | 515 | [From ATT 38.2:] Delta Exports: Figure 54 (see ATT 38.2: att60) displays changes in the Delta exports for the BDCP modeling (Alt 4-ELT (Early Long Term) minus NAA-ELT (No Action Alternative-Early Long Term)) and for the independent modeling (Alt 4 minus FNA (Future No Action)). Independent modeling analysis shows about 200 TAF greater increases in exports than the BDCP modeling. A large component of this difference is due to fixes of known modeling issues, as described in the 2013 SWP DRR (Delivery Reliability Report). This difference is also attributable to more realistic reservoir operations, more efficient DCC (Delta Cross Channel) gate operations, changes in water supply allocation logic, and more efficient operation of the NDD (North Delta Diversion). Average annual SDD (South Delta Diversions) are decreased by about 460 TAF in the independent analysis compared to the BDCP modeling. A large component of this difference is due to fixes of known modeling issues, as described in the 2013 SWP DRR. These fixes prevent "artificial" bypass criteria from limiting use of the NDD beyond what is | This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative. However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts. This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30. 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. |

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| | | <p>intended in the BDCP project description. This difference is also attributable to more efficient DCC gate operations and more efficient operation of the NDD. Figure 55 (see ATT 38.2: att61) demonstrates the difference between the BDCP and independent analysis, where SDD decrease by 2.07 MAF in the BDCP analysis and by 2.53 MAF in the independent analysis.</p> <p>Use of the NDD is 680 TAF greater in the independent analysis relative to the BDCP analysis. A large component of this difference is due to fixes of known modeling issues, as described in the 2013 SWP DRR. These fixes prevent "artificial" bypass criteria from limiting use of the NDD beyond what is described in the BDCP project description. Figure 56 (see ATT 38.2: att62) compares average annual NDD in the BDCP to the independent analysis.</p> | <p>This update was performed to verify if the compiled model improvements altered the incremental changes between the BDCP Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A.</p> |
| 1563 | 516 | [ATT 38.2: att60 -- Figure 54. Result Difference: Delta Exports] | This comment describes a graph prepared by the commenter related to Delta exports and included in the comment letter. Please see response to Comment 515. |
| 1563 | 517 | [ATT 38.2: att61 -- Figure 55. Result Difference: South Delta Diversion] | This comment describes a graph prepared by the commenter related to Delta exports and included in the comment letter. Please see response to Comment 515. |
| 1563 | 518 | [ATT 38.2: att62 -- Figure 56. Result Difference: North Delta Diversion] | This comment describes a graph prepared by the commenter related to Delta exports and included in the comment letter. Please see response to Comment 515. |
| 1563 | 519 | <p>[From ATT 38.2:]</p> <p>Delta Outflow:</p> <p>Total Delta exports in the independent analysis are about 200 TAF greater than the BDCP modeling analysis with a corresponding decrease in Delta outflow in the independent analysis of about 200 TAF. Figure 57 (see ATT 38.2: att63) compares average annual changes in Delta outflow between the independent analysis and BDCP modeling, BDCP modeling shows a decrease of about 567 TAF and the independent analysis shows a decrease of about 759 TAF.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>Modeling for the EIR/EIS has been based on the Existing Conditions, No Action Alternative, and Alternative 1 models developed in April – May of 2010 (2010 models), which were the state-of-the-art at the time, and formed the basis for universal assumptions in the other action alternatives in the EIR/EIS. However, in August 2011 several model improvements were identified by the water agencies, fishery agencies, and the modeling community. The identified improvements were compiled, and the Existing Conditions, No Action Alternative, and Alternative 1 models were updated in coordination with DWR, Reclamation and USFWS. This update was performed to verify if the compiled model improvements altered the incremental changes between the BDCP Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A.</p> |

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| 1563 | 520 | [ATT 38.2: att63 -- Figure 57. Result Difference: Net Delta Outflow] | This comment describes a graph prepared by the commenter related to Delta outflow and included in the comment letter. Please see response to Comment 519. |
| 1563 | 521 | <p>[From ATT 38.2:]</p> <p>Reservoir Storage:</p> <p>Reservoir operating rules for Alt4 in the BDCP EIR/EIS modeling are changed relative to the NAA (No Action Alternative). In the BDCP EIR/EIS modeling of Alt 4 rules are set to releases more water from upstream reservoirs to San Luis Reservoir from late winter through July, reduce releases in August, and then minimize releases to drive San Luis Reservoir to dead pool from September through December. This operation is inconsistent with actual operations and causes reductions in upstream storage from May through August. Figure 58 (see ATT 38.2: att64) and Figure 59 (see ATT 38.2: att65) contain exceedance probability plots of carryover storage and average monthly changes in storage by water year type for Shasta and Folsom for the BDCP and independent modeling. Although carryover storage for Alt 4 and the NAA is similar in the BDCP EIR/EIS modeling, there is drawdown from June through August that may cause impacts to cold water pool management. In the independent modeling upstream reservoirs are drawn down more in years when storage is available while dryer year storage is maintained at higher levels, this is illustrated in the carryover plots for Shasta and Folsom in Figure 58 and Figure 59.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>Modeling for the EIR/EIS has been based on the Existing Conditions, No Action Alternative, and Alternative 1 models developed in April – May of 2010 (2010 models), which were the state-of-the-art at the time, and formed the basis for universal assumptions in the other action alternatives in the EIR/EIS. However, in August 2011 several model improvements were identified by the water agencies, fishery agencies, and the modeling community. The identified improvements were compiled, and the Existing Conditions, No Action Alternative, and Alternative 1 models were updated in coordination with DWR, Reclamation and USFWS. This update was performed to verify if the compiled model improvements altered the incremental changes between the BDCP Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A.</p> <p>The project objectives and purpose and need statement for this project did not include changes to upstream reservoir operational criteria, as described in Appendix 5A, Section B, of the EIR/EIS.</p> |
| 1563 | 522 | [ATT 38.2: att64 -- Figure 58. Result Difference: Shasta Storage] | This comment describes a graph prepared by the commenter related to Shasta Lake and included in the comment letter. Please see response to Comment 521. |
| 1563 | 523 | [ATT 38.2: att65 -- Figure 59. Result Difference: Folsom Storage] | This comment describes a graph prepared by the commenter related to Folsom Lake and included in the comment letter. Please see response to Comment 521. |
| 1563 | 524 | <p>[From ATT 38.2:]</p> <p>North Delta Diversions (NDD):</p> <p>Independent modeling shows greater NDD during July and other months because the BDCP EIR/EIS modeling includes artificially high Sacramento River bypass flow requirements. Figure 60 (see ATT 38.2: att66) contains exceedance probability plots of Sacramento River required bypass, Sacramento River bypass flow, NDD, and excess</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> |

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| | | Sacramento River flow to the Delta. As can be seen in Figure 60, bypass flow is always above the bypass requirement. The BDCP version of CalSim sets a requirement for Sacramento River inflow to the Delta that the independent modeling does not need in order to satisfy Delta requirements, therefore the NDD is higher in the independent modeling. | <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>Alternatives 1 through 9, as presented in the DEIR/DEIS and the RDEIR/SDEIS, assume use of a portion of Sacramento River inflow to maintain south Delta water quality in summer months, as described in this comment. In the Final EIR/EIS, the CALSIM II model was modified to simulate Alternative 4A to explicitly provide a preference for use of the south Delta intakes for up to 3,000 cfs in the summer months.</p> |
| 1563 | 525 | [ATT 38.2: att66 -- Figure 60. NDD (North Delta Diversion), and Sacramento River Flow] | This comment describes a graph prepared by the commenter related to north Delta diversions and included in the comment letter. Please see response to Comment 524. |
| 1563 | 526 | <p>[From ATT 38.2:]</p> <p>Delta flows below the NDD (North Delta Diversion) facility:</p> <p>Figure 61 (see ATT 38.2: att67) contains monthly exceedance probability plots for Sacramento River below the NDD for the following scenarios: 1) BDCP NAA-ELT (No Action Alternative-Early Long Term), 2) BDCP Alt 4-ELT (Early Long Term), 3) independent modeling FNA (Future No Action), and 4) independent modeling Alt 4. The most significant differences in flow changes occur in October, July, August, and September. Changes in Sacramento River flow entering the Delta are a key indicator of changes in interior Delta flows, water levels, and water quality.</p> <p>For the month of October the independent modeling shows flow below the NDD to be about 2,000 cfs lower than the BDCP modeling. The difference in this month is largely due to reoperation (closure) of the cross channel gate to lessen the amount of Sacramento River flow at Hood necessary to maintain Rio Vista flow requirements downstream of the cross channel gates.</p> <p>The most substantial difference between the BDCP and independent modeling occurs in July and August. The differences in these two months are primarily attributable to model fixes that have occurred since the BDCP modeling was performed. In the independent modeling, July flows are reduced on average about 7,500 cfs while BDCP shows a reduction of about 3,300 cfs. In the independent modeling August flows are reduced on average about 5,900 cfs while BDCP shows a reduction of about 3,900 cfs.</p> <p>In the independent modeling September flows are reduced by about 6,100 cfs while BDCP modeling shows a reduction of about 5,300 cfs. The independent modeling shows Sacramento River flow entering the Delta to be about 7,000 cfs 50% of the time, BDCP modeling show Sacramento River flow is about 8,000 cfs 50% of the time.</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment was based on the MBK independent modeling of the No Action Alternative and alternatives which included different assumptions than the CALSIM II model runs used in preparation of the EIR/EIS. Please see Master Response 30.</p> <p>The Delta Cross Channel assumptions in the CALSIM II model are consistent between the No Action Alternative and action alternatives in the EIR/EIS. As discussed in this comment, the criteria for Sacramento River flows at Rio Vista in October would become more critical with action alternatives that include north Delta intakes. Under the future operations, there would be a balance between operations of Delta Cross Channel closure to minimize effects on upstream reservoir storage and water quality criteria. Operations under Proposed Project (Alternative 4A) would increase Delta outflow due to Old and Middle River criteria which will improve water quality as compared to the No Action Alternative. It is recognized that assumptions were used for the impact analysis in the EIR/EIS based upon modeling analyses; and that the real-time operations would provide more flexibility than the CALSIM II monthly-model time step. However, the incremental differences that could occur under the No Action Alternative conditions and Alternative 4A would be similar with different CALSIM II model assumptions in the No Action Alternative conditions and Alternative 4A.</p> |
| 1563 | 527 | [ATT 38.2: att67 -- Figure 61. Sacramento River below Hood] | This comment describes a graph prepared by the commenter related to Sacramento River and included in the comment letter. Please see response to Comment 526. |
| 1563 | 528 | <p>[From ATT 38.2:]</p> <p>Sacramento River water entering the Central Delta:</p> <p>In CalSim, flow through the DCC (Delta Cross Channel) gate and Georgianna Slough from the Sacramento River into the Central Delta is assumed to be linearly dependent on flow</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been</p> |

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| | | <p>at Hood. There are two linear relationships; one is used when the DCC gates are closed, and the other is used when the DCC gates are open. The 2013 SWP Delivery Reliability Report (DRR) CalSim II modeling, and therefore our independent modeling, used different linear flow relationships than BDCP. The BDCP and 2013 DRR (and independent) flow relationships for both the open and closed gate conditions are compared in Figure 62 (see ATT 38.2: att68). When Sacramento River flow at Hood is in the range from 5,000 cfs to 10,000 cfs the balance between Hood flow, required flow at Rio Vista, and DCC gate operation can affect upstream reservoir operations, SOD (South of Delta) exports, and Delta outflow. As shown in Figure 62, given the same flow at Hood and DCC gates closed, the independent analysis will show slightly higher flow into the Central Delta (12% to 17% difference for the Hood flows in the 5,000 cfs to 10,000 cfs range). With DCC gates open the same flow at Hood, the independent analysis will show lower flow into the Central Delta (-15% to -25% difference for the Hood 5,000 cfs to 10,000 cfs range). Figure 63 (see ATT 38.2: att69) and Figure 64 (see ATT 38.2: att70) show the differences through the DCC and combined flow through the DCC and Georgiana Slough.</p> <p>In addition to the differences in flow equations for portion of Sacramento River entering the interior Delta through the DCC and Georgiana Slough, the DCC gate operations were modified for the month of October. In the independent modeling, the DCC gate is operated to balance the amount of Sacramento River flow needed to meet flow standards at Rio Vista on the Sacramento River and flow needed to meet western Delta water quality. This changed operation often results in DCC gate closures for about 15 days during the month of October. The reduction in flow through the DCC during October can be seen in Figure 64.</p> | <p>modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>This comment references one of the differences between the 2010 CALSIM II model and the 2013 updated CALSIM II model update. Modeling for the EIR/EIS has been based on the Existing Conditions, No Action Alternative, and Alternative 1 models developed in April – May of 2010 (2010 models), which were the state-of-the-art at the time, and formed the basis for universal assumptions in the other action alternatives in the EIR/EIS. However, in August 2011 several model improvements were identified by the water agencies, fishery agencies, and the modeling community. The identified improvements were compiled, and the Existing Conditions, No Action Alternative, and Alternative 1 models were updated in coordination with DWR, Reclamation and USFWS. This update was performed to verify if the compiled model improvements altered the incremental changes between the BDCP Alternative 1 and the Existing Conditions and the No Action Alternative relative to the 2010 models. The findings from the 2011 update showed that the incremental differences between Alternative 1 and the Existing Conditions and the No Action Alternative remained consistent with the 2010 modeling. Therefore, the action alternatives modeled since 2011 continued to rely on the 2010 modeling, allowing consistency and comparability throughout the BDCP EIR/EIS. Similarly, when Alternative 4A was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4A as compared to the No Action Alternative were similar to the prior incremental results between the 2010 modeling for the No Action Alternative and Alternative 4A.</p> |
| 1563 | 529 | [ATT 38.2: att68 -- Figure 62. Flow through Delta Cross Channel and Georgiana Slough versus Sacramento River Flow at Hood] | This comment describes a graph prepared by the commenter related to Sacramento River and adjacent channels and included in the comment letter. Please see response to Comment 528. |
| 1563 | 530 | [ATT 38.2: att69 -- Figure 63. Cross Channel Flow] | This comment describes a graph prepared by the commenter related to Sacramento River and adjacent channels and included in the comment letter. Please see response to Comment 528. |
| 1563 | 531 | [ATT 38.2: att70 -- Figure 64. Flow through Delta Cross Channel and Georgiana Slough] | This comment describes a graph prepared by the commenter related to Sacramento River and adjacent channels and included in the comment letter. Please see response to Comment 528. |
| 1563 | 532 | <p>[From ATT 38.2:]</p> <p>Based on the Independent Modeling, the amount of water exported (diverted from the Delta) may be approximately 200 thousand acre-feet (TAF) per year higher than the amount disclosed in the Draft EIR/EIS. This total represents</p> <ul style="list-style-type: none"> - approximately 40 TAF/yr more water diverted and delivered to the SWP south of Delta contractors, and - approximately 160 TAF/yr more water diverted and delivered to the CVP south of Delta contractors. <p>The BDCP Model estimates that, under the NAA-ELT (No Action Alternative-Early Long Term) (without the BDCP), total average annual exports for CVP and SWP combined are estimated to be 4.73 million acre feet (MAF) and in the Independent Modeling FNA (Future No Action) combined exports are 5.61 MAF. The BDCP Model indicates an</p> | <p>This comment addresses BDCP action alternatives contained within the 2013 Draft EIR/EIS which included large-scale habitat restoration. Alternative 4 remains a viable alternative.</p> <p>However, a modified Proposed Project (Alternative 4A/California WaterFix) is being considered that does not include an HCP or NCCP component, or large-scale habitat restoration. Operational criteria also have been modified under Alternative 4A as compared to Alternatives 1 through 9 evaluated in the 2013 Draft EIR/EIS. Please see Master Response 5 regarding a status for BDCP concepts.</p> <p>It appears that this comment was based on the MBK January 2014 review of BDCP modeling. Please see Master Response 30.</p> <p>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 Alternative included different assumptions than the EIR/EIS No Action Alternative, which was the basis for their independent modeling of Alternative 4. Furthermore, MBK's independent modeling of the Alternative 4 included different</p> |

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| | | <p>increase in exports of approximately 540 TAF and the Independent Modeling shows an increase of approximately 750 TAF in Alt 4.</p> <p>The Independent Modeling suggests that Delta outflow would decrease by approximately 200 TAF/yr compared to the amount indicated in the Draft EIR/EIS.</p> <ul style="list-style-type: none"> - This lesser amount of Delta outflow has the potential to cause greater water quality and supply impacts for in-Delta beneficial uses and additional adverse effects on species. To determine the potential effects of the reduced amount of outflow, additional modeling is needed using tools such as DSM2. <p>The BDCP Model does not accurately reflect the location of the diversions that the SWP and CVP will make from the Delta.</p> <ul style="list-style-type: none"> - When the errors in the model are corrected, it reveals that the North Delta intakes could divert approximately 680 TAF/yr more than what was disclosed in the BDCP Draft EIR/EIS, and - the amount of water diverted at the existing South Delta facilities would be approximately 460 TAF/yr less than what is projected in the BDCP Draft EIR/EIS. <p>Hydrologic modeling of BDCP alternatives using CalSim II has not been refined enough to understand how BDCP may affect CVP and SWP operations and changes in Delta flow dynamics. Better defined operating criteria for project alternatives is needed along with adequate modeling rules to analyze how BDCP may affect water operations. Without a clear understanding of how BDCP may change operations, affects analysis based on this modeling may not produce reliable results and should be revised as improved modeling is developed.</p> | <p>assumptions than the EIR/EIS Alternative 4 H1 through H4. Some of the differences in Alternative 4 assumptions include May – Oct north Delta diversion bypass flow operations, Delta Cross Channel gate operations, Old and Middle River flow and south Delta export operations, and discretionary summer export operations. Different assumptions in the MBK’s modeling of the No Action Alternative and Alternative 4 result in different results from the EIR/EIS.</p> <p>As noted in Chapter 5 of the EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the long-term average Delta exports under Alternative 4 remain similar or increase compared to the No Action Alternative. With respect to the reference to the impact designation in the EIR/EIS for WS-2, it was determined that no impact designations would be developed for Water Supply changes because the true impacts occur under other environmental resources. For example, increased surface water deliveries under Water Supply is assumed to result in less groundwater pumping and less effects on groundwater conditions.</p> <p>MBK’s modeling compares the projected Delta exports under the No Action Alternative included in the EIR/EIS, which considers the effects of climate change and sea level rise, to a model run of No Action Alternative that does not include climate change and sea level rise effects, and includes different operational assumptions than the EIR/EIS.</p> <p>MBK’s modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to EIR/EIS modeling. As noted in the Chapter 5 of the EIR/EIS, depending on the decision tree outcome of H1 through H4 scenarios, the resulting north versus south Delta exports will be different under Alternative 4 compared to the No Action Alternative.</p> |
| 1564 | 1 | <p>Introduction</p> <p>The BDCP project was constituted by DWR, USBR and the export contractors of each to avoid their current and future responsibilities for protecting the Delta, and to shift the burden of mitigating the impacts of their projects onto the public in general. Currently the projects regularly violate their permit conditions with no consequences. The past 50+ years of project operations have brought the Delta estuary to the brink of disaster, yet no process, project or regulatory body seeks to force the projects to mitigate their massive impacts. Instead, the mitigation of these impacts is now proposed to be shifted to the public under the habitat portion of the BDCP. Rather than proposing a project that will meet the dual goals of water supply reliability and protection of the Delta and contained in the Delta Reform Act of 2009, the BDCP is a water grab thinly disguised as a conservation project. The BDCP proponents label the largest water infrastructure project ever conceived in the state as a Conservation Measure as if the operation of that project itself is an action to protect and enhance fish. If it were, then more intakes, more tunnels and more exports should recover the near extinct species decimated by the projects. Of course more of the cause cannot be the cure. Even a cursory reading of the analyses</p> <p>done by the fishery agencies involved indicates that installing five huge new intakes on the Sacramento River and pumping millions of acre feet from those new intakes through two tunnels is not something that benefits fish and certainly does not result in improved</p> | <p>Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP or conservation measures. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. 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 the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The preferred alternative now has three intakes.</p> |

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| | | fish populations. By labeling the new intakes and the twin tunnels as a Conservation Measure," DWR and U.S. Bureau of Reclamation (USBR) have raised obfuscation to a level never before imagined. | |
| 1564 | 2 | <p>Supply</p> <p>The BDCP project seeks to insure some level of exports regardless of the available supply; no alternative includes minimal or zero export pumping. As referenced above, the dual goals set forth in the 2009 Act include "water supply reliability." BDCP assumes this legal directive means that export supply must be protected. and increased without regard to the actual available supply or to the legal rights. and statutory mandates associated with the allocation of water in California. The BDCP plan and associated (near incomprehensible) draft EIR/EIS make no analysis whatsoever of the amount of water produced by the relevant Delta-related watersheds or the legal priorities for that water. Included herewith is a copy of the Weber Foundation Studies chart (Attachment 1) showing the Estimated Seasonal Natural Runoff for both the Central Valley and the North Coast Areas, years 1917-1947. These Studies and Chart were one of the efforts at quantifying the amounts of water produced each year when the planning for the CVP (and eventually the SWP) occurred. These studies attempted to. identify available surplus supplies which might be exported, taking into account prior needs. Thus exports were only available when area and watershed of origin needs were satisfied.</p> <p>As can be seen by the Chart, in the 1928-36 drought, the worst drought on record. as of the time of the Studies, the average annual runoff from the Central Valley was 17,631,000 acre feet. At the same time, the estimated "local requirements" were 25,690,000 acre feet. These numbers indicate that in a repetition of such a six year drought the areas of origin, or the Central Valley watersheds (not including export needs) required approximately 8 million acre feet more that the system produced. The magnitude of this shortage cannot be overemphasized. Since various statutes protect and promise areas of origin and the Delta of all the available water for present and future needs (see Water Code Sections 11460 et. seq., and 12200 et. seq.), it is clear that in various times under various hydrologic conditions there is no water for export. Not some or a little, but no water. Whether natural flow or stored water, in some years all is needed to protect the current and future needs of those areas as promised under the statutes.</p> <p>We now know that the needs of the environment a11d fish in particular were certainly underestimated at the time of the Weber Foundation Studies, which means the amount of the sho1tage is even greater. It appears at this time that all "natural flow" and all stored water the projects so jealously guard is needed at many times to simply comply with area of origin demands, fishery/environmental demands, and to meet project obligations contained in their permits issued by the State Water Resource Control Board. These demands are not some hypothetical burden on the projects. Since 2009, DWR and U.S. Bureau of Reclamation (USBR) have violated the following standards: Western Delta Agricultural Objective, X2/outflow Objectives, San Joaquin River Fishery flow Objectives, Old/Middle River Reverse Flow Biological Opinion requirements, and the Agricultural Objectives measured at Vernalis Brandt Bridge; Old River at Middle River and Old River at the Tracy Blvd. Bridge. (See for example Attachment 2.1 This last set of Objectives includes approximately 1000 days of violations since 2005, the year they became effective. In addition to these violations, the projects have sought and received</p> | <p>The Draft BDCP EIR/EIS evaluates long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The CALSIM II and DSM2 models include assumptions to meet State water rights and water quality objectives and federal requirements. Frequently, compliance with these requirements results in reductions in SWP and CVP water contract deliveries including periods with no deliveries under some alternatives, as shown in Part 13 of Appendix 5A, Section C, Modeling Results, of the EIR/EIS. Under the range of alternatives considered in the Draft BDCP EIR/EIS full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors, as presented in Figures C-13-1 through C-13-13 in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. 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 Figure 5-17 of Chapter 5, Water Supply, of the EIR/EIS.</p> <p>The CALSIM II monthly model in the Draft BDCP EIR/EIS 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. The evaluation is a comparative analysis to determine the incremental differences between long-term conditions under the action alternatives and conditions under the Existing Conditions and the No Action Alternative. The analyses were not conducted to identify specific values or to respond to short-term emergency situations, such as drought.</p> |

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| | | <p>relaxation of these and other standards (especially those which limit exports) whereby the State Water Resources Control Board acquiesced to the projects• inability to plan ahead and meet their permit terms. [See Attachment 3] When viewed together these excessive violations of permit terms and standards along with the regular relaxation of compliance to those standards confirms that the amount of water needed to meet the minimum obligations of the projects (not including exports) is woefully insufficient. This of course explains why the BDCP analysis of 40,000+ pages does not include any analysis of the amount of water available for export once superior needs and project obligations are satisfied.</p> <p>This extreme lack of supply in some years is not just suggested by the old Weber Foundation Studies, but is also contained in the original plans for the SWP. Bulletin 76 (Attachment 4) attached hereto indicates that a foundational part of the SWP was to add 5 MAF of water to the Sacramento system by the year 2000 in order to provide not only the needed supply for exports, but first and foremost to address superior rights associated with the drought shortage mentioned above. The 5 MAF was to come from projects on the north coast rivers; however none of the supply was developed and none will be.</p> <p>1.The technical term "Objective" is the manner in which the SWRCB labels a "standard." The two terms are use interchangeably herein.</p> | |
| 1564 | 3 | <p>The failure to go through this analysis of water supply makes the BDCP inadequate under the Jaw as it does not comply with the 2009 Delta Reform Act. In order to determine "a reliable water supply" (not by the way limited to reliable exports) one must not only first determine how much water exists and when, but who is entitled to any of that water. All riparian, pre-1914 rights and virtually all permits and license are superior to the projects' permits. Thus there can 'be no minimum exports under BDCP until it calculates just how much water can be exported; legally. In addition, BDCP fails under CEQA and NEPA by not adequately analyzing the impacts of exports on the environment. The BDCP documents purport to comply with all regulatory mandates. However, given the above referenced violations of standards and regular relaxation of standards, the BDCP analysis is illusory. Since the projects currently have insufficient supply to meet statutory and permit obligations, any EIR/EIS which analyzes the BDCP impacts and still has exports in a 11 years1s by definition faulty and contrary to the law, especially when it assumes massive and repeated water quality violations. Under CEQA, one cannot rely on the base case if the base case anticipates non-compliance with regulatory or legal requirements, as does the BDCP (see Table 31-1). Given the insufficient supply, BDCP's assumption that there will be a minimum amount of exports in every year is inappropriate. One need only look at the 2013-2014 drought to see that reliable exports of the amounts done during those years necessarily means that the projects' anticipate not complying with their permit conditions and other mandatory project obligations. BDCP produces no new water and thus does not address the supply situation.</p> | <p>The Draft BDCP EIR/EIS analysis does not consider a minimum amount of deliveries to CVP and SWP water contractors. The analysis does evaluate long-term operations of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods in a manner to meet State water rights and water quality objectives and federal requirements. Frequently, compliance with these requirements results in reductions in SWP and CVP water contract deliveries including periods with no deliveries under some alternatives, as shown in Part 13 of Appendix 5A, Section C, Modeling Results, of the EIR/EIS. Overall, the long-term average annual Delta exports are less in Alternatives 2, 4 (H2, H3, H4), and 5 through 9 than under Existing Conditions, as shown in Figure 5-17 of Chapter 5, Water Supply, of the EIR/EIS. During this analysis, senior water rights described in this comment are protected in this analysis.</p> <p>Please refer also to Master Response 31, Compliance with the Delta Reform Act, and Master Response 32: Water Rights Issues.</p> |
| 1564 | 4 | <p>Water Code Section 12205/Coordination of Reservoir Releases</p> <p>Water Code Section 12205 states "It is the policy of the State that in the operation and management of releases from storage into the Sacramento-San Joaquin Delta of water for use outside of the area in which such water originates shall be integrated to the</p> | <p>This comment addresses Alternative 4 (known also as the BDCP) or analysis contained within the draft BDCP Effects Analysis. The proposed project (Alternative 4A/California WaterFix) is now 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. The preferred alternative would be operated to meet all Delta water quality objectives in D-1641, including</p> |

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| | | <p>maximum extent possible in order to permit the fulfillment of the objectives of this part."</p> <p>The "objectives of this part" are contained in Sections 12200 and 12201. They are: the maintenance of a "common source of fresh water" in the Delta for beneficial uses in the Delta and for export; the "provision of salinity control" in the Delta; and the provision of "an adequate water supply for the users of water" in the Delta. Taken together, it is clear that both natural flow and stored water must be made available to maintain Delta water quality and to insure in-Delta users have an adequate supply. To insure these objectives are met, Section 12205 mandates that releases from storage for export must be coordinated to meet these in "Delta needs/objectives. The premise of BDCP's new intakes and twin tunnels, misnamed "Conservation Measure 1," is directly contrary to the clear language and intent of these statutes. Diverting water at the very northern end of the Delta for exports via CM1 means that none of that export water will provide any water quality benefits to the Delta and none will be available for in-Delta use. As is clear, but ignored by the projects, the transport of water through the Delta for export was understood and required so that the water would provide in-Delta benefits prior to being exported. BDCP turns the law upside-down and insures that stored export water is not capable of providing multiple benefits, especially those mandated by statute.</p> | <p>objectives that protect in-Delta water users. Please refer to Master Response 32, Water Rights Issues.</p> |
| 1564 | 5 | <p>DWR and U.S. Bureau of Reclamation raise muffled comments that payment is required for any use of stored water use in the Delta, other than their uses. Significantly, they make no official demand for this and operate on a daily basis to actually prove this "supply" and water quality obligations. However, as their argument goes, in-Delta users must pay the projects if stored water is in the Delta and providing benefits to those users. The Central Delta Water Agency comments address the fallacy of this argument by citing to the controlling law. That controlling law aside, any such issue of payment does not excuse BDCP from configuring a project that is contrary to the mandates of Section 12000 et. seq. Even if any such payment was required, the environmental analysis of the BDCP does not clarify if it includes the provision of the necessary water for in-Delta consumptive use or for the protection of water quality. The BDCP modeling either assumes the provision of such water for the next 50 years or it does not. The projects assert that under no circumstances will they be required to allow stored water to pass by the new intakes for in-Delta, yet do not tell us if the EIR/EIS includes providing that water.</p> | <p>The Draft BDCP EIR/EIS discusses water rights and water quality needs of Delta water users in Section 5.1.2.6 of Chapter 5, Water Supply, of the Draft BDCP EIR/EIS. The CALSIM II model assumptions include compliance with SWRCB Decision 1641 as a priority above delivering SWP and CVP water contract deliveries. Stored water developed by DWR and USBR may be used for SWP and CVP water deliveries, water quality objectives (including those that protect in-Delta users), and other project purposes. DWR has a contract with the North Delta Water Agency located to provide water quality benefits to that agency beyond those afforded by D-1641 and it compensates DWR for that benefit.</p> <p>For information regarding Water Rights, please refer to Master Response 32.</p> |
| 1564 | 6 | <p>BDCP must take a position; is it assuming that no water is being provided to fulfill in-Delta supply and quality needs or is BDCP insuring that water will be provided for the 50 years of the project? From South Delta Water Agency's perspective, it will continue to seek a contract with both DWR and U.S. Bureau of Reclamation (USBR) which contract itself would require the necessary water. SDWA's continuing efforts at securing a contract are summarized in Attachment 5. Although DWR professes to be ready, willing and able to negotiate and enter into a contract with SDWA, it refuses to acknowledge that it can provide water to the area, refuses to acknowledge it already does provide water to the area, and refuses to provide a draft contract for review by SDWA. All of these must be clarified as they are apparently inconsistent with the EIR/EIS.</p> <p>Since the BDCP EIR/EIS makes no mention of either the projects' obligation to provide water quality and "supply" benefits to in-Delta users and does not analyze the effects on storage and exports from providing such supply it is inadequate</p> | <p>The Draft BDCP EIR/EIS discusses water rights and water quality needs of Delta water users in Section 5.1.2.6 of Chapter 5, Water Supply, of the Draft BDCP EIR/EIS. The CALSIM II model assumptions include compliance with SWRCB Decision 1641 as a priority above delivering SWP and CVP water contract deliveries.</p> <p>DWR and Reclamation will operate the proposed project consistent with existing Delta water quality requirements, including those that protect South Delta water users. If additional protections for these water users are obtained through a contract between DWR and South Delta Water Agency, DWR would honor those commitments as well.</p> |

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| 1564 | 7 | <p>Fishery Impacts</p> <p>The BDCP impacts on fishery species is comprehensively set forth in the other comments in which SDWA has joined. In brief, the initial premise of the BDCP was that by moving the export pump intakes from the southern Delta to the northern Delta, the adverse impacts of those pumps on fish would be significantly decreased. It quickly became evident that this premise was false; moving the intakes did not decrease impacts to fisheries, it simply moved the impacts to a new place and/or to some other fish species. After trying to limit north Delta intake operations to minimize impacts to fish, BDCP quickly developed a new premise whereby the effects of the pumps on fisheries would be mitigated by significant, new in-Delta habitat. Unfortunately, the scientific basis for this premise was lacking. As expressed in the fishery agencies "Red Flag" comments (Attachment 6) and as succinctly put in the comments by the California Advisory Committee on Salmon and Steelhead Trout (Attachment 7), "[T]he concept of habitat restoration measures to offset impacts from increased water withdrawals from the Delta (increased reliability)" is not supported by science, including but not limited to the 2010 State Water Resources Control Board Delta Outflow Criteria. [Fish and Game Code Section 208(b)(2)]"</p> <p>All the fishery agencies concur that although habitat may be desirable and provide some benefits, no scientific evidence exists to confirm the BDCP premise that more habitat will equal more fish (increased populations). This is especially true given that the ability to get permits for a habitat conservation plan requires one to adopt measures which will result in a greater population of the species covered under the plan. Since the BDCP cannot guarantee more habitat will equal more fish, and since the project actually harms the covered endangered species (e.g. the BDCP EIR/EIS concludes it will result in a reduction in winter run and spring run Chinook salmon smolt survival of 2.9% and 4%, respectively, (see Attachment 6)) BDCP does not contribute to the recovery and would likely jeopardize the continued existence of winter run and spring run salmon. Given this, it cannot meet the requirements for an NCCP under Fish and Game Code for such plans nor meet the requirements for an HCP under federal law.</p> | <p>The main issue raised by the commenter is that the proposed BDCP does not meet the requirements for an NCCP and HCP. Please note that the preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 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 BDCP Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. The preferred Alternative 4A (California WaterFix) will undergo ESA Section 7 consultation and CESA 2081 permitting, and as such will include appropriate mitigation measures to offset any potential impacts identified.</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 please see Master Response 3.</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 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> |
| 1564 | 8 | <p>In recent years, numerous regulatory agencies and other interested entities have concluded that a necessary component in the recovery of Delta related species is an increase in both inflow to and outflow from the Delta. BDCP's proposed preferred alternative is directly contrary to these positions. Examples of such conclusions include:</p> <p>State Water Resources Control Board (2010) "The best available science suggests that current flows are insufficient to protect public trust resources." [p.2]</p> <p>U.S. Fish and Wildlife Service (2010) "... flow in the Delta is one of the primary determinants of habitat availability and one of the most important components of ecosystem function."</p> <p>California Department of Fish and Wildlife (2010) "Recent Delta flows are insufficient to support native Delta fishes in habitats that now exist in the Delta..."[p.94] "... restoration for both salmon and steelhead in the SJR primarily hinges on obtaining sufficient magnitude, duration and frequency of spring time flows..."</p> <p>San Francisco Estuary Project (2011) "Scientists now consider poor freshwater inflow</p> | <p>These comments were considered in determining the range of alternatives. The range of alternatives included in the 2013 BDCP Draft EIR/EIS would result in a wide range of changes in Delta inflow and outflow 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 (shown in Tables 5-5 and 5-8 and Figure 5-4). Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in greater average annual Delta outflow than under the No Action Alternative (shown in Tables 5-6 and 5-9 and Figure 5-4). The range of alternatives also includes Alternatives 6, 7, 8, and 9 which would result in less Delta exports 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 Draft BDCP EIR/EIS).</p> |

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| | | <p>conditions to be one of the major causes for the ongoing declines of fish populations observed in the upper Estuary [p.23].</p> <p>National Research Council (2012) "... if the goal is to sustain an ecosystem that resembles the one that appeared to be functioning up to the 1986-93 drought, exports of all types will necessarily need to be limited in dry years, to some fraction of w1impaired flows that remains to be determined..." [p.105]</p> <p>BDCP however does the exact opposite. The EIR/EIS provides modeling results which indicate that modeled median Delta Outflow under the twin tunnels Delta outflow scenario 2025 and 2060 provide less than the Delta Outflow, Existing Baseline Conditions for 2025 in February, March, April, and May, with the average for the period of February to June also being lower than the Baseline condition. [See Attachment 8]</p> <p>Further, BDCP maintains and actually increases exports during drier times rather than taking advantage of the high flow periods as shown in Attachment 9.</p> | |
| 1564 | 9 | <p>BDCP's proposed actions, though purported to increase fish populations, are contradicted by the best science available. The project does not protect and enhance of the species of concern. In fact the science indicates that the operations and effects of BDCP are contrary to the official positions of the agencies which would issue the permits for an NCCP and/or HCP.</p> <p>The EIR/EIS contains many other errors which appear to hide the adverse impacts on fisheries. The EIR/EIS concludes that the impacts of Alternative 4 (the preferred Alternative) is neutral with regard to flow-related consequences (EIR/EIS at pages 11-55) but this appears to be contrary to a number of large effects found in the document and the effects which will arise from the significant changes in flow and temperature also noted in the document. Two different life-cycle models are reported in Appendix G. Table 50-9 shows escapement figures which seem to show significant decreases in escapement under BDCP. In one of the models, the OBAN, these results are due to the predicted flow and temperature changes which occur farther upstream due to BDCP actions. When these adverse consequences appear, the EIR/EIS ignores them by concluding that actual operations will be different than the modeled actions. This picking and choosing of conditions and operations, as referenced below also cannot be tolerated in an EIR and do not "undo" what the analysis contains.</p> <p>The other model used was IOS, and it shows significant fry and smolt survival declines in both the early and late term proposals of BDCP. [See Tables SG-20 -50-23. Declines of 26% and greater are predicted by the model; again, contradicting the conclusion contained in the narrative portions of the document.</p> <p>As stated above, these negative results are discarded by BDCP by criticizing the very models they chose to use for the analysis. The comments and consultation during the development of BDCP identified a number of potential models, but BDCP's internal logic apparently selected two that they do not trust. In fact, the two models referenced above are believed to underestimate the impacts to certain salmon species. Earlier analysis on this issue was done by NMFS which found decreased survival of all salmon and steelhead species. [See Attachment 10]</p> | <p>Note that an RDEIR/SDEIS was developed and circulated in 2015, which included 3 additional Alternatives including the new preferred alternative, 4A. 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>With respect to IOS and OBAN, these models are being re-run to reflect more accurate representation of upstream conditions as part of the Section 7 process.</p> <p>With respect to delta smelt and turbidity, the DEIR/EIS estimated around 8-9% less sediment entering the Plan Area (not 9% less turbidity, as the commenter suggests; note also that the commenter's reference to 20% of sediment being removed in relation to Figure 5C.D-11 does not account for the relative loads in different months); under Alternative 4A, to the maximum extent practicable, the first and preferred disposition of the sediment removed by the North Delta Diversion will be to reintroduce it to the water column in order to maintain Delta water quality (specifically, turbidity, as a component of Delta Smelt critical habitat). DWR will collaborate with USFWS and CDFW to develop and implement a sediment reintroduction plan that provides the desired beneficial habitat effects of maintained turbidity while addressing related permitting concerns (the proposed sediment reintroduction is expected to require permits from the Central Valley Regional Water Quality Control Board and USACE). USFWS and NMFS will have approval authority for this plan and for monitoring measures, to be specified in the plan, to assess its effectiveness.</p> <p>With respect to longfin smelt, the analytical method that was used (based on regressions from Kimmerer et al. 2009) reflected the best available method for this analysis. As discussed in the RDEIR/EIS, Alternative 4A, the preferred alternative, includes similar spring Delta outflow as the NAA in order to address concerns regarding potential effects to longfin smelt, as well as Mitigation Measure 22d (see discussion for Impact AQUA-22).</p> <p>With respect to San Joaquin River Chinook salmon, effects are analyzed as part of the overall analysis for fall-run Chinook salmon (see Impact AQUA-78). San Joaquin River spring-run Chinook salmon are part of an experimental population and are not subject to take prohibitions under NMFS' 4(d) rule for West Coast threatened salmonids.</p> |

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| | | <p>One of the identified stressors for smelt is turbidity. The EIR/EIS notes a 9% decline in turbidity (page 11-267) does not constitute a significant impact on the fish. This decrease in turbidity is a result of the project removing large amounts of Sacramento River water (and its sediment contribution to Delta turbidity) as shown in Figure 5C.D-11 . Over 20% of the River's sediment is siphoned off by the new north Delta intakes. The EIR/EIS attempts to explain this away by noting that the proposed increase in the Yolo Bypass habitat will later make up for this loss of sediment/turbidity. However, this new habitat is already required under NMFS 2009 Biological Opinion. BDCP expects it to be completed after it is required by the BO. This means that the purported mitigation for the loss of turbidity will not occur until after the twin tunnels and new intakes are operating, and, that this mitigation is actually part of the No Action Alternative/baseline conditions.</p> <p>With regard to longfin smelt, the EIR/EIS using findings that suggest outflow/X2 controls longfin smelt abundance. However the analysis ignores other things such as the size of the population from one year to the next. This results in predicted populations based only on outflow without regard to things such as the prior year population. A smaller population will not increase as much as a larger population given the same outflow during the important time period . Even with this bad analysis, the document shows startling declines in abundance up to 33%.[See Table SC.5.4-39] EIR/S claims that this decline will be mitigated by restoration of habitat is contrary to U.S. Fish and Wildlife Service conclusions (see Attachment 11).</p> <p>It is unclear just how the EIR/EIS analyzes and make conclusion regarding San Joaquin River salmon. We could find no text dealing with the impacts of the project on to-be-established spring run salmon. It appears that for all established species the EIR/S predicts they will all go to populations of zero in the first years of the project (Table 4, Appendix 50). We find no explanation as to how this is not fatal to approval of the project.</p> | <p>With respect to “It appears that for all established [San Joaquin River salmon] species the EIR/S predicts they will all go to populations of zero in the first years of the project (Table 4, Appendix 5G). We find no explanation as to how this is not fatal to approval of the project.”, Table 5.G-4 only contains documentation of IOS reaches; as previously noted, IOS and OBAN, these models are being re-run to reflect more accurate representation of upstream conditions as part of the Section 7 process.</p> <p>Please see Master Response 31.</p> |
| 1564 | 10 | <p>Operations Under Catastrophic Earthquake Scenario</p> <p>The BDCP seeks as one of its main objectives to provide some level of protection against the impacts of a catastrophic earthquake in the Delta. As constantly stated by BDCP, the likelihood of an earthquake to cause multiple island levee failures is a near certainty. As BDCP describes the scenario, ground accelerations from a large magnitude earthquake will result in miles of Delta island levees having their underlying foundations experience liquefaction. This instability will in turn cause miles of levee failures and numerous islands to flood during one catastrophic event. This sudden flooding would cause rapid ocean salinity intrusion and make Delta waters unfit for local use or export. BDCP specifically asserts that the existence of the Conservation Measure 1 facilities would allow the continuation of exports during such catastrophic flood events, whereas without such new facilities, exports would be precluded for many years. Since significant urban and agricultural areas rely on Delta water, any significant cessation of Delta exports would place large urban areas at risk, as well as other areas and uses dependent on Delta exports. Notwithstanding the evidence to the contrary (see for example excerpts for US Army Corps of Engineers comments to the earthquake analysis - Attached 12), BDCP therefore specifically anticipates using the new diversions and twin tunnels to insure a protected supply of water for municipal and other beneficial uses during such catastrophe.</p> | <p>Please see Appendix 6A for a discussion on flood risk and levees in the Delta.</p> <p>Please also refer to Master Response 16, Delta Seismic Activity, for further discussion about seismic response and operations.</p> |

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| | | <p>This means that BDCP will seek to use the new facilities under the catastrophic scenario it believes will happen. However, the BDCP EIR/EIS has no analysis of this scenario. The anticipated operations of the new facilities, per the EIR/EIS, have specific limitations on how and when they may be used. If a catastrophe occurs, these limitations are in significant ways contrary to the expressed need to provide water for municipal uses after a catastrophic Delta flooding, i.e., they do not allow for pumping when needed or desired. What if the earthquake scenario occurs during a time when the new facilities are not to be operated under currently proposed rules or the eventual permits? This is no hypothetical; the operational rules for the new facilities are very specific about when north Delta intakes will be used and when they will not. In fact, the north Delta facilities are not allowed to be operated in approximately half of the years (the drier years) due to low flows in the Sacramento River.</p> <p>If BDCP specifically anticipates use of the new intakes and twin tunnels during an event they assert is certain to happen, CEQA and NEPA require that this event and the operations of the new facilities be examined. If you plan on doing something under a project, you must analyze the effects of doing that. Unless by some amazing quirk of fate the catastrophic earthquake only occurs during the limited times BDCP can use of the new facilities, one of the primary objectives of the project remains completely unexamined. Just as various operational scenarios are analyzed with and without the new facilities, BDCP is 'legally obligated to state how the new facilities will be operated during the catastrophic earthquake, how those operations will differ from currently proposed operations and of course, how those changed operations will affect fish wildlife and other beneficial users</p> <p>BDCP cannot rationally state it will operate the new facilities according to current proposed operations since currently proposed operations do not allow for any specific exports from the north Delta facilities at all times. Not only cannot BDCP have it both ways, but it certainly cannot avoid a CEQA or NEPA analysis of conditions it has repeatedly stated will occur.</p> | |
| 1564 | 11 | <p>Water Quality (other than South Delta).</p> <p>The 2009 Delta Reform Act calls for achievement of two co-equal goals, including measures to improve water quality (e.g., CWC Section 85302(d)(3) and 85302(e)(5)). However the BDCP does not even try to accomplish the goal of improved water quality. For a large number of water quality constituents, the EIR/EIS discloses increased levels but simply labels them "significant and unavoidable." For example, the EIR/EIS discloses adverse impacts on chloride and bromide concentrations and other water quality constituents. (See, e.g., BDCP EIR/EIS pages 8-407 and 8-425). These worsening water quality parameters could be easily addressed by changes in Delta outflow. Rather than do this, BDCP reduces Delta outflows during dry periods instead of increasing them. Since such additional outflow would affect storage and modeling, BDCP ignores this as an alternative to the proposed project, instead choosing a project that will adversely affect water quality. This intentional limitation on the alternatives analysis is insufficient and defective under CEQA and NEPA.</p> <p>Under CEQA and NEPA, acceptable and effective mitigation measures must be considered and adopted if reasonable and feasible. The BDCP EIR/EIS fails to do this (e.g., WQ-5, WQ-7, WQ-11 and WQ-18) but rather states "the effectiveness of (increased flows) to</p> | <p>Please see Master Response 14 for additional discussion regarding water quality effects and considerations.</p> <p>Please also refer to Master Response 22 for a discussion regarding adequacy of mitigation measures, and Master Response 31 for a discussion about compliance with the Delta Reform Act.</p> |

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| | | <p>result in feasible measures for reducing water quality effects is uncertain." There is nothing uncertain about whether more water (increased flows) will lower the concentration of various pollutants or constituents in Delta waters; physics trumps confusion. Rather than conduct the required analysis and evaluation, the EIR/EIS only proposes to "Conduct additional evaluation and modeling of increased EC (salinity) levels following initial operations of CM 1" (Mitigation measure WQ11a (EIR/EIS page 8-427)). This means that BDCP has chosen to undertake a project that will worsen Delta water quality, build the facilities of that project first and only afterwards conduct additional studies to see if dilution/more flows will address the problems. Clearly, BDCP wants to secure the new intakes and twin tunnels regardless of Delta water quality or the mandates of CWC Section 85302(d)(3) and 85302(e)(5). This indicates that the proponents fully understand that what they seek to do is to maximize exports at the expense of Delta water quality and other Delta beneficial uses.</p> | |
| 1564 | 12 | <p>In jury to Legal User of Water</p> <p>One part of the permitting necessary for BDCP will/must be done by the State Water Resources Control Board (SWRCB). That Board will have to consider the proposed change in point of diversion for the new north Delta intakes. However, in order to approve such a change in point of diversion, the SWRCB must apply and make findings under Water Code Sections 1700 et. seq. which include:</p> <p>Section 1702. Before permission to make such a change is granted the petitioner shall establish, to the satisfaction of the board, and it shall find, that the change will not operate to the injury of any legal user of the water involved.</p> <p>Since the BDCP EIR/EIS contains numerous "significant and unavoidable" impacts related to deteriorated water quality (resulting from the project), the SWRCB would have to find that worsening Delta water quality "will not injure any legal user of water." Clearly such a finding is impossible given the current SWRCB Water Quality Objectives for the Protection of Beneficial Uses set forth in its Decision-1641. As an example, BDCP proposes to relocate the Emmaton compliance location to Three Mile Slough near the Sacramento River. This means that additional poor quality water would be allowed to intrude further into the Delta which is a serious degradation of Delta water quality. [Again, in direct contradiction to the 2009 Delta Reform Act. (BDCP EIR/EIS page 8-146)] Further, the modeling of these water quality impacts contains serious flaws in that it shows mismatches between daily and monthly input data that result in large unrealistic daily spikes in salinity. These render the BDCP analyses of changes in water quality invalid, cannot be considered the "best science available" and do not pass muster under CEQA and NEPA.</p> <p>Since the BDCP will result in violations of water quality standards, by definition it will harm other legal users of water reliant on and protected by those standards. Absent any meaningful analysis of those impacts and the elimination or mitigation thereof, the BDCP cannot pass must under CEQA or NEPA, or the other regulatory approvals it must secure.</p> <p>As referenced above, the EIR/EIS shows significant violations of SWRCB water quality standards under existing conditions (see Table CI-3 of Appendix 80; Chloride on page 8G..3). Neither CEQA, NEPA nor the SWRCB condone proposed projects which will result in serious and repeated violations of Water Quality Objectives. Put another way, the law</p> | <p>This comment addresses Alternative 4 (known also as the 2013 BDCP) or analysis contained within the draft BDCP Effects Analysis. Alternative 4 remains a viable alternative.</p> <p>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. DWR and the Bureau have applied for change in point of diversion from the SWRCB for the proposed project. All questions about injury to legal users of water will be decided by the SWRCB through a water rights hearing in which all potentially affected water users may participate and provide evidence.</p> <p>Please also refer to Master Response 31, Compliance with the Delta Reform Act.</p> |

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| | | does not allow anyone to undertake a project which will result in violations of regulatory requirements . | |
| 1564 | 13 | <p>Modeling</p> <p>The BDCP modeling contains three fatal flaws which preclude it from being any sort of useful analysis for CEQA and NEPA, much less any sort of informative analysis of the proposed project's impacts. These fatal flaws are more comprehensively covered in the Contra Costa Water Agency comments to BDCP, and a summary thereof is included herewith as Attachment 13.</p> <p>The first is that "assumptions, errors and outdated tools used in the BDCP modeling result in impractical or unrealistic CVP and SWP operations." As an example, with regard to climate change inflow to Millerton Lake on the upper San Joaquin River is expected to decrease under future climate scenarios*. However in BDCP modeling>. Millerton Lake storage is increased by inappropriately reducing deliveries to the Friant Division of the CVP. The modeling overestimates Millerton Lake storage, and thus releases which affects downstream water.</p> <p>Similarly the BDCP modeling under different climate change scenarios does not incorporate any reasonable actions taken by project operators to adapt to the changes in available water. The BDCP modeling results indicate that reservoirs reach minimum pool in droughts and regulatory demands go unmet, something that operators and regulators do not allow to happen. As in the current drought, operators and regulators propose and adopt changes to operations and to permit Obligations (decrease CVP and SWP release requirements) in order to (and do) avoid reaching minimum pool conditions in reservoirs; the opposite of what the BDCP modeling assumes/concludes. Because the model ignores what drought decisions will/have been made to address these very dry conditions, it masks the effects of the project by making the future conditions look so bad, that the BDCP ends up looking beneficial because things cannot get any worse than the modeling shows for the without project.</p> <p>Second, the BDCP modeling has an ill-defined and unrealistic High Outflow" scenario.</p> <p>That High Outflow scenario is one possible alternative action under BDCP if it is later determined that the protection of fisheries requires more water than BDCP initially intends to provide. The model places the main responsibility of providing this "extra" water on the SWP without any recognition of the "rules" under which the CVP and SWP allocate water among themselves. The "Coordinated Operations Agreement" (or "COA" which is set forth in federal law) has specific rules on how and which project's water is used for various purposes, and what water each can export. Put another way, it determines how the projects "share" obligations and exports. When BDCP modeling assumes the SWP will provide water needed for the High Outflow scenario, it is contrary to the COA. BDCP modeling contains no treatment of how the CVP would "payback" SWP the water it dedicated for the High Outflow scenario.</p> <p>Further, it appears there is no real source for this extra water needed for the High Outflow scenario. It cannot come from existing storage as that would further threaten cold water pool needs for protecting fish habitat and affect carryover. Proposals to "purchase" the water from other users/right holders on (mainly) the Sacramento system</p> | <p>It appears that the comments in this section of the letter were based on the MBK's Jan 2014 review of BDCP modeling. The BDCP 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.</p> <p>It should be noted that the MBK independent modeling of the No Action Alternative included different assumptions than the BDCP EIR/EIS No Action Alternative; and the MBK No Action Alternative 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 north Delta diversion bypass flow operations from May through October, 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 climate change assumptions were consistent across all the BDCP EIR/EIS Alternatives including the No Action Alternative. As shown in the BDCP EIR/EIS, San Joaquin River operations remain unchanged under the action alternatives compared to the No Action Alternatives. Furthermore, the error in the Millerton climate-modified inflow was found to only affect Millerton storage and flows in the San Joaquin River, and it had only minor impacts to the Delta and Sacramento River operations.</p> <p>BDCP EIR/EIS modeling of Alternative 4 H1 through H4 was based on a No Action Alternative model developed in 2010, and includes the same assumptions of the projected climate change and sea level rise effects at 2060. The modeling shows that changes in climate and sea level could result in "dead pool" conditions in SWP and CVP reservoirs upstream of the Delta even without action alternatives. The "dead pool" conditions presented in the CALSIM II model results in the Draft 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. The dead pool conditions also 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 BDCP EIR/EIS analysis considers changes between the frequency of dead pool conditions under the action alternatives and the No Action Alternative (both with the same climate change assumptions). In addition, the model cannot make decisions that occur in real-time, such as drought operations during the ongoing drought. It is recognized that different SWP and CVP operations would continue to occur during emergency situations, including flood and drought conditions. Separate project-specific environmental documentation will be completed for those situations.</p> <p>As described in Chapter 5, Water Supply, the BDCP EIR/EIS analyses assume continued implementation of regulatory requirements for the American River watershed in accordance with the requirements under the CEQA definition of Existing Conditions and under the NEPA definition of the No Action Alternative. Changes in the regulatory requirements would only occur following detailed analyses, including project-specific CEQA and NEPA analyses and ESA and CESA analyses. Following adoption of changes to the 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.</p> |

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| | | <p>would have to come mainly in the spring; at a time when most of those other users have little or no irrigation needs. Since the potential sellers are not using water which they could instead sell, the burden for the extra flows would have to again come from storage with the accompanying adverse impacts to fisheries and carryover.</p> <p>Third, the modeling of when and how much water would be taken from the new north delta diversions (and when and how much from the current south Delta diversions) contains an artificial constraint which limits north Delta diversions, which is itself contrary to the BDCP project description. This constraint also contains errors which affect the No Action Alternative. DWR and USBR have corrected these errors in their current models but not in those used for BDCP. The BDCP model also contains an error which does not accurately reflect summer operations of the south Delta diversions which are intended and required to improve water quality impacts in the southern Delta.² The result of these errors is that the BDCP modeling underestimates the amount BDCP will be diverting from the new north diversions and overestimates the amount to be diverted from the south diversions. In that event, lower total diversions from the southern Delta would mean less Sacramento River water would be brought into the area and a consequent worsening of water quality in those channels. This potentially significant and damaging impact remains unexamined in the EIR/EIS.</p> <p>In summary, significant problems exist in the models used by BDCP which result in unusable results. Many of the problems with the models have been subsequently fixed by DWR and USBR, but the modeling done for the BDCP remains uncorrected. The information thus produced by the models, included in the EIR/S and used to evaluate the impacts of the project are certainly not the best available science and provide no meaningful analysis. Thus the EIR/EIS are inadequate and insufficient under the applicable CEQA and NEPA law.</p> <p>2 As more fully explained later, SWP and CVP exports from the southern Delta are necessary to bring more of the fresher Sacramento River into the south Delta to dilute CVP salts there which enter from the San Joaquin River. The DWR and USBR permit obligate them to meet water quality objectives in that area, and this is one action they undertake to try to meet those objectives.</p> | <p>As described in Appendix 5A, Section B, CALSIM II and DSM2 Modeling Simulations and Assumptions, Alternative 4 H4 assumes that the increased Delta outflow is first met by reducing exports to the assumed “public health and safety” level (1,500 cfs); and then releasing water from Lake Oroville outside of the Coordinated Operations Agreement. This action results in reduced SWP water contract deliveries. Chapter 11, Fish and Aquatic Resources, includes the results of the related impacts to the cold water pool and its effects to the fisheries.</p> <p>As noted above, different assumptions in the MBK’s modeling of the No Action Alternative and Alternative 4 result in different results from the BDCP EIR/EIS. Specifically, MBK’s modeling of Alternative 4 does not allow for the discretion and operations flexibility available for the Delta exports in the summer months, which results in a different split in the exports from the north Delta versus the south (through) Delta compared to BDCP EIR/EIS modeling. Further, as noted in the Tables 5-7 through 5-9 of the Draft BDCP EIR/EIS, depending on the decision tree outcome of Alternative 4 H1 through 4 H4 scenarios, the resulting north versus south Delta exports will be different under Alternative 4 as compared to the No Action Alternative. The range of water quality effects under Alternative 4 as a result of these export changes are analyzed in Chapter 8, Water Quality, of the EIR/EIS.</p> <p>As noted above the modeling for the BDCP and the BDCP 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 Alternatives 2 through 9 in the BDCP 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 4 was modeled using the 2013 baseline, the incremental changes in the operational results for Alternative 4 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 4. It should be noted that the modeling used in the BDCP EIR/EIS must be used in a comparative manner and not to define absolute values.</p> <p>Please also see Master Response 30.</p> |
| 1564 | 14 | <p>Water Quality Southern Delta.</p> <p>The modeling which predicts the impact on southern Delta salinity is incorrect and must not be accurately describing the hydrodynamics of the southern Delta. The construction and operation of the CVP (in coordination with the SWP) was reduced the inflow to the southern Delta. Other upstream projects and uses have also decreased Delta inflow from the San Joaquin River. The CVP also delivers millions of tons of salt to the southern valley, much of which enters the San Joaquin River as surface or subsurface drainage with salinities which exceed downstream standards by several orders of magnitude. Further, since the export pumps of the CVP and SWP drastically lower water levels in southern Delta channels, flow patterns in the area are radically changed. Since the area naturally contains some dead-end channels, the changed flow patterns exacerbate null zones where no net flow is present to flush the CVP introduced salts out. [See Attachment</p> | <p>Appendix 5A details the modeling assumptions related to the HORB operations. Additionally, there is a DSM2 calibration in Appendix 5A which shows the performance of DSM2 in modeling hydrodynamics and salinity in the south Delta under historic flow conditions. The proposed project is not altering San Joaquin River flows upstream of Vernalis, or the temporary agricultural barrier operations. The HORB will be a permanent operable gate, which can be operated to address water quality concerns in real-time. Given that a portion of the CVP and SWP exports will now be taken from north Delta, there will be more San Joaquin River flows entering south Delta under the non-HCP alternatives.</p> <p>Please also refer to Master Response 30, regarding modeling assumptions and approach and summer discretionary pumping aspects of Alternative 4A operations. Please also see Master Response 14, for further discussion of water quality, including those pertaining to chloride (salt).</p> |

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| | | <p>14] Thus the impacts of the CVP and SWP on the southern Delta are; decreased inflow, lowered water levels, creation and/or exacerbation of null/stagnant zones and the introduction of hundreds of thousands of tons of salt each year.</p> <p>In response to this situation, DWR and U.S. Bureau of Reclamation (USBR) eventually agreed to the Temporary Barrier Program which installs three rock barriers each year (except in rare high summer flow years). These barriers hold the incoming tide to partially mitigate the CVP and SWP adverse impacts to local water levels. It was originally thought the barriers would also create net flows in the main channels to improve water quality, but subsequent operations and modeling indicate that does not generally occur. The rock barriers have limited operational flexibility (flap gates on the culverts running through the rock barriers) and attempts have been made to change operations to induce net flow in limited areas (e.g. Old River between Tracy Old River barrier and Old River at Tracy Blvd. Bridge. In recent years an additional one foot of rock has been installed on the Middle River barrier (on July 1 or thereafter) in order to induce further net flow in Old River. All of these actions have had limited, or undetermined results, though efforts and analysis continues.</p> <p>It is important to note that the barriers are a partial mitigation of the adverse CVP and SWP impacts. Absent the protection of the barriers, the projects would be susceptible to litigation and potential injunction relief to preclude the continued damage to local diverters.</p> <p>The Head of Old River barrier, though permit-wise tied to the Temporary Barrier program is not actually associated with the temporary barrier goals of protecting agricultural diversions. The HOR, by blocking any San Joaquin River flow into Old and Middle Rivers, adversely impacts local water levels and deprives local diverters of some supply. This occurs especially on the ebb tide just downstream of the HOR when the outgoing flows cannot be supplemented by the incoming San Joaquin River flow. To address this problem, DWR's installation of the HOR is controlled by an agreement with South Delta Water Agency wherein certain conditions require the opening of the culverts on the HOR to provide downstream flow, or actually require removal of the barrier under some circumstances. To date, the fishery agencies do not seem to understand that the desire to protect fish while allowing Exports simply redirects the harm to innocent third parties; southern Delta diverters.</p> <p>It is not well understood that the San Joaquin River is practically speaking, no longer connected to the Bay. This is because the amount of flow in the River is rarely greater than the consumptive uses and export diversions between the point where the River enters the Delta and where the Delta meets the Bay. To explain, if the River flow is 1000 cubic feet per second (cfs) but surface evaporation, riparian evapotranspiration and agriculture crop evapotranspiration exceed the 1000 cfs flow, then the River cannot reach the Bay as all of its water is consumed before it can get there. To expand the example, when exports are also present, they too remove water from the channels, sometimes upwards of 8-11,000 cfs. Hence the flow of the River would have to be 10-12,000 cfs to have enough flow to move through the south Delta. Unfortunately, the flow of the river in any particular year is between 500 cfs and 5000 cfs. The higher end of the flow is normally only during the spring pulse flow for fish (approx.one month) and even then, the River flow is almost always less than exports and the other local demands.</p> | |

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| | | <p>This is evidenced by the BO which limits reverse flows in the area. Given that the River is normally insufficient to supply local needs when exports are present, the "gap"; in supply is pulled naturally from the other areas of the Delta (including on incoming tides) and of course is intentionally pulled there by the export pumps themselves which are bringing Sacramento River water in.</p> <p>As one might imagine, if the River cannot reach the Bay and water is flowing into the area from two directions, there is no net flow, the area becomes a stagnant zone and water quality deteriorates.</p> | |
| 1564 | 15 | <p>Local consumptive use and diversion needs in the southern Delta are a function of many conditions, but especially agricultural demands. Thus, the amount of diversions needed and undertaken by south Delta farmers depends on the time of year (do the crops or plants need water) and temperature. Although high demand is normally in summer months when crops are growing and temperatures are high, the demand occurs all year. In dry times, water demand can be high even in early winter if a lack of precipitation means pre-irrigation and early irrigation is needed for local crops.</p> <p>Local demand therefore could be from a few hundred cubic feet per second (cfs) per day up to the summer maximums which can approach 1400 cfs (see D-1641, page 32). The EIR/EIS includes a number of alternatives/scenarios which are impractical, but instructive as to the EIR/EIS 's accuracy. Any time the BDCP suggests that southern Delta export diversions are shut off (as in Alternative 6 and sometimes Alternative 4 the preferred alternative), the impacts on local water quality are significant. For example in a dry year (like 2014) diversion needs of local farmers could approach 1000 cfs in late winter and early spring. Water quality at that time can be very bad, in fact this year water quality violations occurred virtually all winter and spring. This means that local conditions are damaging to beneficial uses. Under BDCP Alternative 6, BDCP would have no southern Delta exports during this time. That means significantly less of the fresher Sacramento River water is drawn into the southern Delta to dilute the CVP salts.³ This is because the exports pumps are no longer drawing that fresher water to the area, only the tides are moving it.</p> <p>3. Anytime San Joaquin River flows are less than consumptive uses in the southern or and central Delta, that "gap" in flow will be made up by any other Delta inflow, whether from the Sacramento River, other tributaries or the Bay.</p> | <p>The results of the analysis presented in Chapter 8, Water Quality, of the Draft BDCP EIR/EIS indicates that changes in chlorides and electric conductivity in the Delta under the action alternatives as compared to the No Action Alternative would be adverse in some periods. The Draft BDCP EIR/EIS also indicates that measures to reduce these impacts would need to be developed as conditions related to climate change, sea level rise, and wetlands restoration become more defined.</p> |
| 1564 | 16 | <p>With no CVP and SWP export pumps, the southern Delta and portions of the central Delta become a null zone, without any net flow. This is because there area has inflows from both directions; on the southern end of the Delta the San Joaquin River flows in while other Delta inflow or Bay water flows in from the northwest. Flows from two directions mean no net flow at some point in the area. With regard to quality, that means all of the accumulated salts in the area and all of the salt in the San Joaquin River flow remains in the area. If the summertime flow at Vernalis is 1000 cfs for 90 days at an EC of 700, that means $(1000 \times 700 \times 0.00175 \times 90)$ 110,250 tons of salt enter the area but do not leave the area in just the summer. That number does not take into account the salt already in the area from the preceding months. Since the various channels of the southern and central Delta have differing flow patterns there will be differing impacts as the salts will not accumulate the same at all locations. However, during those times</p> | <p>Please refer to Master Response 14 for additional discussion of water quality effects, including those pertaining to chloride. Also refer to Master Response 30, for further discussion of the modeling approach and assumptions.</p> |

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| | | <p>when the standards are already being exceeded or when water quality is approaching a standard, adding and .collecting that huge amount of salt wilt adversely affect all beneficial uses, especially the agricultural uses which are supposed to be protected by those standards.</p> <p>It is incumbent on the BDCP EIR/S to do the simple math calculations to check on their obviously incorrect modeling results. One can easily estimate the salt in the are by looking at measured EC, then calculate the amounts of salts delivered by the San Joaquin River over any period of time and then conclude how much salt is where. Any analysis which does not reflect significant impacts from the collection of hundreds of thousands of tons of salt in a no-net flow area must be wrong.</p> | |
| 1564 | 17 | Violations of standards are not the only measurement of harm to diverters. Any deterioration of water quality translates into decreased crop production as set forth in Attachment 15. Thus the EIR/S conclusions that few additional exceedances of standards is no significant is unsupported unless and until is evaluates how any particular increase in salinity affects crop damage. | Exceedances of water quality objectives were not the only threshold against which water quality effects were assessed relative to effects on beneficial uses. Water quality degradation (termed "deterioration" in the comment) was also a threshold (see Section 8.3.2.3, thresholds #3 and #4). Effects on crops due to salinity changes are addressed in Chapter 14, Agricultural Resources, Impacts AG-2 and AG-4. |
| 1564 | 18 | A more detailed description of the hydrodynamics of the southern Delta and how salt accumulates in the various channels can be found in Attachments 12 and 14, which are the 1980 report "Effects of the Central Valley Project on the Southern Delta Water Supply" and the "Project Update Presentation" (a Power Point) May 15, 2014 authored by AECOM-ICF Consultants respectively. Chapter VU of the 1980 Report gives a concise description of how various factors including inflows, tides and export pumping affect local water conditions. The IFC modeling work shows updated information on those same south Delta flows and the mixing of the poor quality San Joaquin River flows in the area and the accumulation of the CVP salts. | The commenter does not raise any specific comment on the adequacy of the EIR/EIS. |
| 1564 | 19 | Initially it must be noted that the BDCP EIR/EIS is a near indecipherable document. Its presentation of numerous Alternatives, with varying flow regimes and uncountable other parameters can only be understood by comparing hundreds of pages of data, charts, graphs and conclusions. Summary descriptions of effects in the text must be compared to mounds of data, charts and graphs in the Appendices and other attachments, sometimes revealing conclusions contrary to the summaries, or conflicting, relevant data not mentioned in the summaries. If for no other reason than to create a document that is partially user friendly, the EIR/EIS should be re-written and re-circulated for review. It is for all intents and purposes impossible for a small agency like South Delta Water Agency to review, analyze and comment on tens of thousands of pages. BDCP gets an "F" on the EIR/EIS with regard to adequately informing the public. | <p>For comments pertaining to the range of alternatives evaluated, please refer to Master Response 4.</p> <p>For comments pertaining to the size and complexity of the document, please refer to Master Response 38.</p> |
| 1564 | 20 | <p>The BDCP modeling results relating to EC (salt) appear at a number of pages, especially in Appendix 8H. As previously described, the clear and undisputed inaccuracies of the modeling discovered by MBK and others means that the EIR/EIS results cannot in any way lead to a meaningful evaluation of the impacts of the project. This of course means that specified BDCP operations, including exports or opportunities for exports cannot be known or modeled until the corrections are made to the models</p> <p>The unreliability of the modeling is highlighted by and examination of the data in Appendix 8H. Table EC-6 compares EC Objective violations under the Existing</p> | Please refer to Master Response 30, which discusses the adequacy and accuracy of the modeling work conducted as part of the EIR/EIS analysis. As noted above, the IOS and OBAN models are being re-run as part of the Section 7 consultation process. |

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| | | <p>Conditions, the No Action Alternative and Alternative 6. Alternative 6 as mentioned above (including 6A, 6B, and 6C) is the alternative in which only exports from the new diversion facilities in the north Delta and the twin tunnels occur, no export pumping is from the current SWP and CVP facilities in the southern Delta (see EIR/EIS at pages 3-71, 3-73 and 3-74). Put another way, Alternative 6 is only pumping out of the north Delta and not pumping out of the south Delta.</p> <p>Table EC-6 indicates that under Alternative 6 (no export pumping from the southern Delta) water quality exceedances are fewer than under the Existing conditions (though similar to the No Action Alternative). As described above when the flow of the San Joaquin River is less than the evaporation from channel surfaces, evapotranspiration of riverine riparian habitat and evapotranspiration of local agricultural lands, there is no flow out to the Bay. That is to say, "nothing leaves the area." The exception to this is the water which leaves the area via the CVP and SWP export pumps. These pumps pull water from the area and at the same time remove some of the salts that entered via the San Joaquin River and which accumulated there.</p> <p>With no export pumping in the area (Alternative 6) all of the salts entering the area will stay in the area and concentrate. This means that hundreds of thousands of tons of salt will stay in the channels. It is impossible for water quality violations to decrease when more salt remains in the area. Although fall and winter times are also a problem, let us examine summer months to highlight this problem. From June through October, the three agricultural barriers are installed and (generally operated) in the south Delta to protect local diversions. Water and salt enter the area Upstream of the barriers and water enters on the incoming tide from downstream of the barriers. The two waters (and salt) mix but are not allowed to flow out on the ebb tide because the barriers prevent that ebb flow. If the barriers were "water tight," none of the water or salt entering the area would be able to leave the area (exit downstream past the barriers). However the current system is not perfect. The barriers are made of rock which means water leaks through them (goes out on the ebb tide). In addition, the heights of the barriers are such that they are below the high-high tide and so some water flows back over them, downstream on the ebb tide. Once downstream of the barriers, the net flow is to the export pumps of the CVP and SWP, and so any salt in the ebb tide is exported. This export of "leakage" is the only way by which any salt leaves the area unless the flow of the San Joaquin River is greater than local consumptive use demands and exports; which means there would be enough flow to reach the Bay and flush the area. Practically speaking this is an extremely rare event under current operations.</p> <p>Thus, according to the EIR/EIS, if BDCP stops all pumping from the south Delta the water quality will improve (or stay the same) even though less salt is removed from that area. This is not just an inconsistency, it is a fundamental flaw in the evaluation of the project. Allowing more salt to stay in an area with poor circulation necessarily means that the water quality will deteriorate.</p> | |
| 1564 | 21 | <p>The BDCP modeling scenarios cannot be assuming some sort of additional dilution with be present. Recall that the operation of the export pumps in the southern Delta intentionally draws more of the better quality Sacramento River water into the area. That better quality water dilutes the poor San Joaquin River water (especially upstream of the barriers) which dilution fundamentally determines the EC as measured at the Water</p> | <p>The commenter suggests that the modeling is faulty because of assumptions about the salt and boron TMDL for the San Joaquin River. It is important to note that the implementation of the TMDL was not a CALSIM II or DSM2 modeling input. Rather, the discussion of the ongoing development and implementation of the salt and boron TMDL for the Lower San Joaquin River is to provide additional information beyond the modeling output regarding the potential future concentrations of salt-related parameters in conjunction with</p> |

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| | | <p>Quality Control Plan compliance locations in the south Delta. Absent the export pumps, the Sacramento River water reaching the southern Delta will be of a worse quality as it will now be blended with more Bay water. This deterioration is clearly shown in the BDCP modeling which indicates worse water quality at the compliance station of Emmaton and other downstream locations (see EIR/EIS page 8-436 et. seq.)</p> <p>Thus under the BDCP analysis, less salt is removed from the area, less dilution will occur, but water quality will improve (or stay the same) in the south Delta under Alternative 6. Of course Alternative 6 is not the preferred alternative. However, if the BDCP modeling results are wrong for on alternative, then logically the modeling results for the other alternatives are too suspect.</p> <p>Turning to winter, we see that the BDCP modeling is faulty or is using incorrect inputs. BDCP suggests that the eventual adoption and implementation of the salt total maximum daily load on the San Joaquin River will decrease the salinity of the water at Vernalis. The opposite is the case. The Regional Water Quality Control Board is developing a salt TMDL for the stretch of the River between (approximately) Vernalis and the mouth of the Merced River. The main focus of the Regional Board and the Committee developing the draft TMDL is to institute a real time operations program to coordinate saline discharges with assimilative capacity in the river (see Lower San Joaquin River Committee webpage http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/lower_sanJoaquiu_river_committee/administrative_materials/index.shtml)</p> <p>Under current conditions, drainage from the valley refuges and other locations enters the River in large amounts in winter, causing a spike in salinity. This spike is subsequently diluted by any available flows and by releases from New Melones (Stanislaus River) by the USBR. The high salinity is diluted to meet the 1.0 EC standard at Vernalis. The Real time operations being anticipated by the Regional Board simply spread out the timing of the dilution, they do not decrease any of the salt load entering in the River. This means that at times when (without the TMDL) the River was of good quality and the EC well below the standard, it will now (under the TMDL) be closer to the standard, or worse because that fresher water will now be used to dilute the rescheduled bad drainage. The TMDL will only change the timing of the poor quality drainage, it will not improve the quality at either Vernalis or in the south Delta. Since New Melones is operated to meet the Vernalis standard, nothing will change except the current higher salt loads at higher flows at certain times will be exchanged for lower flow with higher concentrations during more times. Since New Melones dilutes the salt to the standard already, shifting the timing of the drainage will not decrease the EC of the water at any time because any improvement in quality from the rescheduling will simply result in less New Melones dilution being released; there is no improvement in EC. Although a minuscule amount of additional water may be in the system as dilution (doubtful), that amount would be insignificant and thus the same water and same salt would enter the southern Delta over the same periods. Nothing therefore changes for the better. And of course, when this same salt and same water reach the southern Delta is still will get stuck except in those very high flow periods.</p> <p>Again, under Alternative 6, BDCP concludes this will result in an improvement in water quality (or no change). The only time the salts will leave the area will be when the River</p> | <p>implementation of the project alternative. The salt and boron TMDL is being implemented in phases to establish load allocations to achieve water quality objectives for salt and boron and a program of implementation. The information regarding the TMDL is to provide additional context and note the sole basis for the impact determinations for EC on the San Joaquin River. Please also refer to Master Response 30, regarding modeling assumptions and approach, and Master Response 14, for further discussion of water quality, including those pertaining to chloride (salt).</p> |

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| | | flows exceed the consumptive use needs of the area between Vernalis and the confluence of the Sacramento and San Joaquin Rivers; a truly rare event. At all other times the central and southern Delta will have worse water quality; the opposite of what the BDCP modeling shows. | |
| 1564 | 22 | <p>Alternative 4 is the preferred alternative of the BDCP, and it anticipates continued exports for the existing CVP and SWP facilities in the southern Delta, though less from the south than is currently done. Modeling results for this Alternative are on page 8H-5 in Table EC-4. Initially, the comparison of "days an Objective is exceeded" with the "days an Objective is out of compliance" in this Table is troubling. Per the EIR/EIS, the difference between the two deals with Objectives that have averages, such as the southern Delta salinity Objectives which are 30-day running averages. This only becomes an issue when the Objective changes from 0.7 EC to 1.0 EC on April 1 of each year. According to the quoted footnote in D-1641, if on the 30th day after the lower standard kicks in the criteria is exceeded (0.7 EC), all the prior 29 days are counted as violations. Although this does occur (this year the lower 0.7 EC Objective at Old River at Tracy Blvd. Bridge has never been in compliance) it is a very rare occurrence, associated only with droughts. In all other years, the fishery pulse flow on the San Joaquin (beginning generally on April 15) provides such high flows of good quality water that the three southern Delta objectives are quickly met. Thus, there is no apparent reason why to how there can be more days out of compliance than there are days of exceedance as the Table shows. Whatever the modeling may or may not accurately show, any violations during this short period are mostly irrelevant to an examination of a project's effects. The data should be corrected or removed. Comparing this quirk of compliance rules with anything is not informative and likely contains false information.</p> <p>Table EC-4 (again, Alternative 4 the preferred alternative) shows that under all scenarios, the number of days the southern Delta salinity standard at Old River/Tracy Blvd. Bridge is exceeded increases under the preferred alternative. [From 250 days to 327, 3171 335, and 320 for H 1-H4 respectively.] At Brandt Bridge the water quality improves and at Old River/Middle River it stays virtually the same. However, the monthly changes in Table EC-15A show a different picture. From June to September, this Table shows that water quality at the three locations goes up and down in no consistent manner and virtually unrelated to year types. These numbers cannot be correct.</p> <p>With regard to Old River/Tracy Blvd. Bridge, the only effect the BDCP can have on the southern Delta is to remove less salt as explained above. Even with the continuation of exports from the south Delta facilities of the CVP and SWP under the preferred alternative, diversions from that area will be less than are currently done. With less exports, there will be more salt left in the area, and hence the concentration of salt will have to increase. This means that salinity can only rise. Table EC-15A indicates that at this location in summer months there are varying impacts to salinity when comparing the Existing Condition and No Action Alternative to the preferred alternative, Alternative 4. Since the amount of water entering the southern Delta and the amount of salt entering the southern Delta remains unchanged under each of these scenarios, there can be only one result which is higher salinity levels. The varying changes reported in the EIR/EIS cannot be correct.</p> <p>The EIR/EIS does not tell us how any reputed rise (or decrease) in salinity compares to the</p> | <p>Please note that the preferred alternative is now Alternative 4A, a designation that was not attached to any of the alternatives presented in the 2013 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 BDCP Draft EIR/EIS may be utilized by other programs for implementation of the long term conservation efforts. The preferred Alternative 4A (California WaterFix) will undergo ESA Section 7 consultation and CESA 2081 permitting, and as such will include appropriate mitigation measures to offset any potential impacts identified.</p> <p>Under CM1, dual conveyance operations will allow for modifications of the south Delta diversions, and potentially those of the Delta Cross Channel, that will reduce the frequency and magnitude of flows that cause migrating fish to enter the interior Delta. These reductions will, in turn, allow juvenile out-migrants to follow a downstream course into more tidally-influenced portions of the estuary, thereby allowing for more rapid migration and briefer exposure to predation. These modifications to the south Delta diversion will also result in a reduction of the proportion of fish entering the interior Delta, where survival of juvenile Chinook salmon (and presumably other salmonids) is lower (Baker and Morhardt 2001; Brandes and McLain 2001; CALFED Bay-Delta Program 2001; Perry and Skalski 2009; Perry et al. 2010). Reducing the reliance on through-Delta conveyance via the Delta Cross Channel and intakes in the south Delta will also substantially reduce the effects of existing flow anomalies, such as weak flows or reverse flows on salmonids in the San Joaquin River system and tributaries, Mokelumne River, and other eastside tributaries.</p> <p>Please also refer to Master Response 30, regarding modeling assumptions and approach, and Master Response 14, for further discussion of water quality, including those pertaining to chloride (salt).</p> |

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| | | <p>conditions at the time. Does a 10% increase occur when the EC is 10% below the standard? Any such rise is not revealed in the modeling results in Table EC-4 unless it causes a new violation and monthly changes shown in Table EC-15A do not inform us of the EC level being affected. In addition, the degree to which a violation occurs in Table EC-4 is not revealed; is the violation 1% higher than before or 20% higher? Further, the modeling does not reveal what happens in areas such as that downstream of this compliance location which is the null zone where EC levels are substantially above that measured at the compliance locations.</p> <p>With regard to the other two southern Delta compliance locations, (Old River at Middle River and Brandt Bridge) the BDCP again does not result in more dilution water entering the area (it results in less) and it does not result in less salt entering the area. Therefore, it is an impossibility to have water quality improvements or to have no change as shown in the Tables referenced above. Clearly, the modeled results are inaccurate. As referenced above and more fully explained in CCWD's comments, the identified flaws in the models, the false assumptions being used therein, and the problems associated with using models which have different time- steps make all the modeling unusable.</p> <p>Just as Alternative 6 includes no export diversions from the southern Delta, the preferred alternative also includes times when the new north Delta diversions are being used and the current southern diversions are not. As previously presented above, violations of water quality standards can occur in fall, winter, spring and summer. When BDCP uses the no11h diversions only, the CVP salt in the southern Delta and the constant addition of more CVP salt via the San Joaquin River will mean that a buildup of salt will continue at a faster pace than before BDCP, no matter what the season. The modeling does not seem to accurately reflect this necessary outcome for the most part. It does shows isolated instances such as a 10% increase in EC in January for a.11 years (average) (see page 8H-16, Table EC-15A). One must assume that the majority of these increases occur during drier times, which means the supply water in the channels at a time when local diverters must pre-irrigate their land (due to lack of rain) is significantly worse under the project (which of course should be a significant impact of the project).</p> <p>BDCP masks these effects by averaging flood and wet years with drier years. Per Table EC-4, an increase in violations of 77 days (difference between 250 days and 327 days) is "insignificant"(according to BDCP) because those 77 days are only as 4% increase in all days. In actuality, it is a 31% increase in days violated, and may significantly increase the violations in any particular year. An accurate comparison would look at when the increased violations occur.. Is the increase at one time of year? Is that time more important than other times to the relevant crops? Does the increase cause crop damage .in any particular year? These questions indicate that lumping all violations together and .ignoring when violations occur is improper.</p> <p>It is also of note that per the MBK modeling analysis (Attachment 13) the actual diversion from the existing SWP and CVP in the south Delta under BDCP could be 460 TAF/year less than was analyzed in the EIR/EIS. Such a significant decrease in the removal of salt from the area should reveal drastic changes in EC levels in the southern Delta. This effect remains unanalyzed.</p> <p>Lastly with regard to this issue, the State and Federal Anti-Degradation policies cannot be construed to allow this level of degradation to Delta waters. The BDCP and its EIR/EIS</p> | |

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| | | <p>attempt to address this issue via mitigation measures, especially WQ-5, WQ-7, WQ-11 and WQ 17. However, these measures seek only to conduct further modeling and determine what might be done to address the worsening water quality resulting from BDCP. Besides being inadequate, the anti-degradation policies as well as CEQA and NBPA do not allow a project proponent to build and operate the project and then later try to figure out how to mitigate its impacts.</p> <p>It is informative to note that the BDCP anticipates a project that not only will continue and increase water quality violations in the southern Delta, but also needs to alter X2, move compliance locations and alter the Export/Inflow ratio. Limitation contained the CVP and SWP permits and/or in applicable Biological Opinions. It is inconceivable that a proposal to make everything worse could be contemplated much less approved.</p> | |
| 1564 | 23 | <p>No Legal Authorization.</p> <p>In 1982 the voters of California rejected the law created by SB 200. SB 200 authorized the State via DWR to construct an isolated facility in the Delta to take export water from the north Delta before that water was able to flow through the Delta, just as the currently proposed BDCP seek to do, only now using twin tunnels instead of a canal. Whether or not DWR was authorized to undertake such a project without the passage of SB 200 is of course moot. However, in 1982 the Legislature granted DWR such power. Subsequently, the people of California through the Referendum process specifically revoked that power and voted to "undo" SB 200. Hence the last legislative act by California was to revoke the power of DWR to undertake the construction of an isolated facility for exports. DWR's current actions in BDCP are therefore by definition in excess of their powers.</p> <p>If the Legislature approved the building of a new office structure for DWR; then voted to undo that authorization, would DWR be able to go forward with the office structure simply because it found willing partners? Of course not. Under the law, the last act by the Legislature/People of the State controls, and therefore DWR is not authorized to proceed with BDCP absent specific legislative approval.</p> | DWR is legally authorized to proceed with the design, construction and operation of the proposed project, which is authorized under the Burns-Porter Act and the state Central Valley Project Act. These two Acts are laws authorizing the construction, operation and financing of the State Water Project. The Burns-Porter Act was approved by the voters in 1960. The voters in 1982 did not change DWR's authority to proceed with the proposed project under these Acts. They both remain effective law after that vote. Based on the existing authorities, DWR may proceed with the Cal WaterFix facilities. |
| 1564 | 24 | The EIR/EIS is insufficient to support the proposed project and must be redone and recirculated. In addition, the plan itself does not meet the regulatory conditions which would allow permitting and should be abandoned. DWR and U.S. Bureau of Reclamation (USBR) should undertake a new process to first quantify the amount of water which might be available in any particular year, determine the priority needs for that water, and then calculate surplus supply available for export. It is incumbent upon DWR and USBR to also identify and fully mitigate all adverse impacts of the SWP and CVP on fishery, south delta agricultural diverters, and other users. | The California Department of Water Resources and the U.S. Bureau of Reclamation are water purveyors and do not have the authority to determine water rights or beneficial uses. Both agencies hold water rights permits from the State Water Resources Control Board. It is up to the State Water Board to make changes to the permits in terms of export quantities or applicable beneficial uses. More information about the role of the State Water Board is provided in the EIR/EIS Chapter 5. The EIR/EIS identifies all of the potential impacts of the construction and operation of the proposed project and includes measures to fully mitigate for those effects. |
| 1564 | 25 | Att 1: Copy of the Weber Foundation Studies Chart Showing Estimated Seasonal Natural Runoff for the North Coast Area and Central Valley 1917-18 to 1946-47 | Please see response to comment 1564-2. |
| 1564 | 26 | Att 2: Various Compliance Standards for the San Joaquin Delta and Susin Marsh, from 2010 to 2014 | Please see response to comment 1564-2. |
| 1564 | 27 | Att 3: We page and stations associated with historical water quality in the Delta. | Please see response to comment 1564-2. |

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| 1564 | 28 | Att 4: The page of article order approving a temporary urgency change in license and permit terms and conditions requiring compliance with delta water quality objectives in response to drought conditions written by the California Protection Agency and the State Water Resources Control Board | For information on the proposed project and drought operations, please see Master Response 47. Also see response to comments 1564-2 and 1564-13. |
| 1564 | 29 | Att 5: Title page of Bulletin No. 76 on Delta Water Facilities by Harvey Obanks, Director of Department of Water Resources and Edmund G. Brown, Governor of California | Please see response to comment 1564-2. |
| 1564 | 30 | Att 6: First page of letter, dated April 9, 2014, from the South Delta Water Agency (SDWA) to the Water Education Foundation on topic of SDWA entering into contract with Department of Water Resources | Please see response to comment 1564-6. |
| 1564 | 31 | Att 7 : First page from report NMFS Progress Assessment and Remaining Issues Regarding the Administrative Draft BDCP Document dated 4/4/13 | Please see response to comment 1564-7. |
| 1564 | 32 | Att 8 : First page of letter from the California Advisory Committee on Salmon and Steelhead Trout dated February 26, 2014 to Director of California Department of Fish and Wildlife on recommendation to deny incidental take permit and Natural Communities Conservation Plan for bay Delta Conservation Plan | Please see response to comment 1564-7. |
| 1564 | 33 | Att 9: BDCP source chart showing modeled median delta outflow for BDCP | Please see response to comment 1564-8. |
| 1564 | 34 | Att 10: First page of article entitled Proposed BDCP Project Alternative Exports More in Drier Periods not Less dated August 15, 2013 (no source) | Please see response to comment 1564-8. |
| 1564 | 35 | Att 11: Bullet points entitled Adverse Water Quality Impacts of BDCP's Conservation Measure #1 (salinity levels and water temperature) dated August 15, 2013 (no source) | Regarding water quality please see Chapter 8 of the Final EIR/EIS and Master Response 14. Information on water rights can be found in Master Response 32. |
| 1564 | 36 | Att 12: Draft article entitled Analysis of BDCP Project Changes to Delta Exports (no source) | Please see Master Response 26, Area of Origin and Master Response 32, Water Rights. Information on operations criteria can be found in Master Response 28. |
| 1564 | 37 | Att 13: Article entitled NMFS Evaluation of Flow Effects on Survival in Vicinity of Proposed North Delta Diversions BDCP Admin Draft Dec 2012 dated 4/4/2013 (no source) | Please see response to comment 1564-9. |
| 1564 | 38 | Att 14: Page 1 of article entitled U.S. Fish and Wildlife Service Staff BDCP Progress Assessment (no source) | Please see response to comment 1564-9. |
| 1564 | 39 | Att 15: Extracts of USACE May 23, 2007 Comments (no source) | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1564 | 40 | Att 16: Page 1 excerpt from Report on Review of Bay Delta Conservation Program Modeling | Please see response to comment 1564-22. |
| 1564 | 41 | Att 17: Title page and page one of article entitled Effects of the CVP Upon the Southern Delta Water Supply Sacramento-San Joaquin River Delta, California dated June 1980 written by the Water and Power Resources Service and the South Delta Water Agency | Please see response to comment 1564-18. |
| 1564 | 42 | Att 18: Front page of article entitled The Economic Impact on San Joaquin County of Yield | Please see response to comment 1564-17. |

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| | | Decrement from Reduction in San Joaquin River Quality | |
| 1565 | 1 | Grassroots Coalition fully supports the positions of the Environmental Water Caucus groups. | The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. |
| 1565 | 2 | ATT1: Letter from Environmental Water Caucus Group, submitted as letter BDCP778 | The comment describes an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the Final EIR/EIS. |
| 1566 | 1 | <p>The Contra Costa Taxpayers Association would like to comment on the proposed BDCP project.</p> <p>In the BDCP, Chapter 8, 8-12 to 8-13, facility construction costs are estimated in the following manner:</p> <p>Construction management is estimated at \$14.4 billion. Direct construction costs are at \$9.2 billion. Salary cost figures are not organized. How do we know if salary and pension costs rise within 2 to 10 years? What about increases in construction costs, especially seeing that this document uses 2011 dollars. The figures for the project can be higher with no concrete information to where the funding comes from. More importantly, there is no detailed finance plan as to who is paying for construction, operations, and interest. According to an article dated July 23, 2014 in the San Jose Mercury News entitled, "Property taxes could pay for \$25 billion Delta tunnels without public vote"</p> <p>Major water districts in California are quietly considering using property taxes -- and possibly raising them without a vote of the public -- to help fund Gov. Jerry Brown's \$25 billion plan to build two massive tunnels through the Sacramento-San Joaquin River Delta.</p> <p>Why should property taxpayers be encumbered with higher taxes for a water project that will mainly support large interests in the San Joaquin Valley? Why don't property taxpayers have a say as whether or not they want to support this project?</p> | <p>This comment addresses Alternative 4 (also known as the BDCP). Alternative 4A, also known as California WaterFix, has been developed in response to public and agency input and is the new CEQA Preferred Alternative. Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the 2013 Public Draft EIR/EIS. Alternative 4 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>For information on implementation costs and funding sources for the BDCP (including the likelihood of cost overruns as well as BDCP funding sources and assurances), please see Master Response 5. 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.</p> |
| 1566 | 2 | Is a Habitat Conservation Plan like BDCP required to identify funding for its implementation? Funding must be sufficient for all proposed activities and all financial contributions and planned allocation of funds must be allocated. The proposed habitat conservation plan that goes along with tunnel construction will be paid for by general obligation bonds. Why are California taxpayers being asked to pay for mitigation of the tunnels project that will not benefit the general taxpayer? And what if taxpayers vote against these general obligation bonds? Will the mitigation simply be forgotten and will the Delta be left as an industrial eyesore after construction? | <p>This comment addresses Alternative 4 (also known as the BDCP). As indicated in Response 1566-1, Alternative 4A is the new Preferred Alternative. Alternative 4A no longer includes an HCP.</p> <p>Response 1566-1 also indicates that Master Response 5 generally responds to comments on the BDCP. Please see Master Response 5 regarding the BDCP's funding strategy. Master Response 5 describes how mitigation for the BDFP would be funded. Portions of some of the conservation measures are identified in the 2013 DEIR/EIS as mitigation required to offset the impacts of the construction or operation of the proposed water conveyance facility (see Table 8-41 in Chapter 8 of that document). Funding for the mitigation component of these conservation measures would be paid for by the participating state and federal water contractors, not the public. All conservation measures would be maintained through the life of the 50-year permit. Conservation measure 11 ensures that all land acquired for the reserve system will be maintained in perpetuity.</p> |

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| 1566 | 3 | <p>With over 50 significant and unavoidable adverse impacts, the BDCP violates the intent of the 2009 Delta Reform legislation to protect the Delta as listed in Table 31-1 on pages 31-9 to 31-13 of Chapter 31 of the draft EIR/EIS. These impacts will destroy Delta communities thereby dramatically reducing their property tax base.</p> <p>The Delta Reform legislation of 2009 called for meeting the coequal goals of water supply reliability and ecosystem restoration but said, "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 (Water Code Section 85021)." The impacts listed in this table make it clear that Delta communities are not to be treated in an equal manner.</p> | <p>For information on compliance of the Preferred Alternative with the Delta Reform Act, please see Master Response 31 and the Final EIR/EIS, Appendices 3I and 3J. For information on compliance of the BDFP with the 2009 Delta Reform Act, please see Final EIR/EIS Appendix 3I.</p> <p>For information specifically pertaining to the number of significant and unavoidable impacts associated with the Preferred Alternative, please see Master Response 10. For information on evaluation of the Delta as a place, please see Master Response 24. For information regarding Environmental Commitments, please see Appendix 3B of the Final EIR/EIS. For more information regarding mitigation measures, please see each resource area chapters in the Final EIR/EIS.</p> |
| 1567 | 1 | <p>Suisun Resource Conservation District (SRCD) has reviewed the BDCP, DEIR/EIS, and has evaluated the proposed Project's future significant and unavoidable negative impacts to the wetland and wildlife resources of the Suisun Marsh from habitat conversion and further degradation of water quality conditions in the Suisun Marsh. The SRCD Board of Directors, which represents the private landowners of Suisun Marsh, cannot support and strongly opposes the proposed BDCP project. The Project proposes extensive future "mitigation" in the Suisun Marsh, which will result in the direct conversion and loss of existing managed wetland values and functions, and the degradation of the water quality conditions for the management of tens of thousands of acres of waterfowl and wildlife habitat on publicly and privately owned managed wetlands in the Suisun Marsh. The Project's "mitigation" will highly alter and increase the Suisun Marsh salinity regime, dampen the tidal stage, redirect tidal energy, and modify the existing ecological characteristics of over 58,000 acres of tidal and managed wetlands in the Suisun Marsh. It hardly seems accurate to describe the BDCP actions in the Suisun Marsh as "mitigation" -- a term that connotes beneficial action.</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 EIR/EIS analyzes all alternatives, including Alternative 4A. Alternative 4A would include substantially less acreage of restoration, and fewer effects 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. See also Final EIR/EIS Chapter 8 and Appendix 8H and Master Response 14 for further discussion of water quality and EC impacts. See also Master Response 5 for discussion of BDCP effects analysis.</p> |
| 1567 | 2 | <p>The implementation of the BDCP Project and required mitigation measures are inconsistent with the 1977 Suisun Marsh Preservation Act's provision, "to preserve the integrity and assure continued wildlife use of the Suisun Marsh, including the preservation of its waterfowl-carrying capacity and retention of the diversity of its flora and fauna". To achieve the objectives of the 1977 Suisun Marsh Preservation Act, the Bay Conservation and Development Commission (BCDC) established policies and regulations in the Suisun Marsh Protection Plan, and the Department of Water Resources (DWR) also developed the 1981 Plan of Protection for the Suisun Marsh to mitigate the effects of the Federal Central Valley Project (CVP) and the State Water Project (SWP) on the Suisun Marsh. To protect Fish and Wildlife Beneficial Uses in the Eastern and Western Suisun Marsh, the State Water Resources Control Board established and has maintained numeric salinity standards for the Suisun Marsh in Water Rights Decision 1485, Order 95-6, and Decision 1641 (D1641). These salinity standards were further reinforced with execution of the Suisun Marsh Preservation Agreement (SMPA) and RSMPA by and between DWR, U.S. Bureau of Reclamation, Department of Fish and Wildlife (DFW) and SRCD. Any action of BDCP that reduces existing Delta outflow, increases tidal mixing of salts into the Suisun Marsh, or causes an exceedance of the D1641 or RSMPA salinity standards would be detrimental to the existing ecological values of the Marsh and a violation of D1641 and</p> | <p>The Lead Agencies will continue to support the ecological values of the Suisun Marsh and to meet the obligations under the 1977 Suisun Marsh Preservation Agreement (SMPA) and the Revised Suisun Marsh Preservation Agreement, in addition to complying with applicable water quality standards. Please see Master Response 14 for more on water quality.</p> |

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| | | the Revised Suisun Marsh Preservation, Monitoring, and Mitigation Agreements salinity standards. | |
| 1567 | 3 | <p>BDCP will result in unacceptable increases in Western Delta and Suisun Marsh salinities, and neither the BDCP nor supporting environmental documentation accurately reflect nor mitigate for those increases.</p> <p>The BDCP and supporting DEIR/EIS don't define future Project operations and impacts on existing Delta outflows. Instead a potential range of operational scenarios with a "decision tree" is presented, but the analysis does not quantify the duration and extent of the degradation of Suisun Marsh water quality and long term impacts to existing tidal and managed wetland habitats. The effects analysis repeatedly acknowledges increases in Suisun Marsh salinities from existing baseline conditions. This will result in a direct violation of the Revised Suisun Marsh Preservation, Monitoring, and Mitigation Agreements and D1641 Suisun Marsh salinity standards.</p> <p>The BDCP DEIR/EIS is inadequate because it fails to disclose the impacts of the proposed Project on the salinity of water diverted into Suisun Marsh managed wetlands. In brackish and freshwater tidal marshes, changes in salinity of a few parts per thousand will have considerable effects because the growth, productivity, and survival of most species are highly sensitive to any salinity (Parker 2011). Small changes in salinity could significantly affect the diversity and composition of these wetlands. Increases in soil salinity and inundation will differentially affect germination and the physiological limits of species (Parker 2011). A primary effect of salinity is that it delays germination and seedling development. Plant loss during this seedling stage can reduce the plant population density to suboptimal levels and significantly reduce yields (Mass 1993). The BDCP modeling presents salinity as the average monthly salinities (as represented by electrical conductivity [EC]). This provides a very coarse level of evaluation, which is inadequate to assess daily, monthly and seasonal impacts of the proposed Project operations on the Suisun Marsh salinities and water users. Fall flooding and seasonal irrigations of Suisun Marsh managed wetlands occur during high tide. At high tide, water flows by gravity into the managed wetland through water control structures from the adjacent tidal slough channels. (Water Rights D1641 - Table 3.) Water Quality Objectives For Fish and Wildlife Beneficial Uses measures Suisun Marsh salinity objectives compliance as the, "maximum monthly average of both daily high tide EC values." The reason D1641 requires measuring salinity compliance at high tide is because this is the period when channel water salinities are the highest and when managed wetlands are diverting water (by gravity) for habitat management and performing leaching cycles to reduce soil salinities during the spring growing season. In most regions of the Suisun Marsh the channel water salinity is lowest at low tide, with highest salinities at high tide. Therefore, impact analysis using daily average salinity (EC) under represents impacts of the proposed BDCP Project on Suisun Marsh water users and habitat management capabilities.</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 less than significant impacts to EC and chloride in Suisun Marsh, as compared to the preferred alternative in the Draft EIR/EIS. See also Master Response 45 for discussion of the decision tree and Master Response 14 on water quality.</p> |
| 1567 | 4 | Note that the BDCP DEIR/EIS 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 (which was an above normal year) and 1993 was followed by another critical water year. The modeled period of 1987-1991 | DSM2 models a 16-year period. For reasons detailed in Appendix 5A, Section D, Additional Modeling Information, the 16-year period modeled was 1976–1991. These reasons included having a series of years that represented the full spectrum of water year types. The years 1976-1991 fit the spectrum of year types and also were contained in a continuous series of years that could be run as one study. The 1987–1991 period provide a sequence of five year types of drought (dry and critical conditions), or nearly one-third of the simulation period. Additional information in Final EIR/EIS Appendix 5A, Section D illustrates that |

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| | | <p>doesn't represent the full extent of the 1987-1992 or 1987-1994 drought conditions or potential impact on Suisun Marsh salinities.</p> <p>Figure 1 presents daily electroconductivity (EC) data for Montezuma Slough at Beldon's Landing for the period October 1976 through October 1983. The data are from four computer model simulations performed for the BDCP using DWR's DSM2 water quality model. The four simulations are:</p> <ul style="list-style-type: none"> - No Action Alternative at Late Long Term - Proposed Project Alternative 4, Low Outflow Scenario (H1) at Early Long Term - Proposed Project Alternative 4, High Outflow Scenario (H4) at Late Long Term - Proposed Project Alternative 4, Low Outflow Scenario (H1) at Late Long Term | <p>adding years to the simulation would not contribute to furthering the understanding of the project alternatives effects during extended drought periods. See also Master Response 14 for additional discussion of water quality and Master Response 30 and Chapter 5 and associated appendices for discussion of modeling for the proposed project.</p> |
| 1567 | 5 | <p>[ATT 1:</p> <p>Graph entitled "Suisun Marsh -- Beldon's Landing EC"</p> <p>Figure 1: 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. This plot was prepared by Richard Denton, consultant to Solano County, from BDCP modeling data supplied by DWR.]</p> | <p>This comment describes a graph in an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS.</p> |
| 1567 | 6 | <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 at page 8-157. Even so, the 16-year averages suggest that the BDCP proposed project would substantially increase salinities in Montezuma Slough at Beldon's Landing -- i.e., more than doubling of salinity concentration in December through February. (Appendix 8G, Figure C1-8.) This will seriously impair the ability of Suisun Marsh landowners to effectively manage wetland habitats, will adversely impact fish and wildlife beneficial uses, and reduce wetland diversity and habitat conditions. Small changes in salinity could significantly affect the diversity and composition of these wetlands (Parker 2011). The quality of water plants are exposed to has a direct impact on their survival, growth, and overall health. This is particularly true in regard to salinity. (Warrance and Bauder.)</p> <p>However, the 16-year averages used in the DEIR/EIS do not disclose sufficient detail about the timing and magnitude of the salinity changes for individual months of different years and water year types.</p> <p>These BDCP simulations also show that there are significant adverse impacts to salinity from the proposed Project for both the Low Outflow and High Outflow scenarios. The largest increases in salinity occur primarily in the fall. The impacts are greatest for the Low Outflow scenario which assumes there will not be any Fall X2 requirements.</p> <p>Figure 2 based upon DWR's BDCP DEIR/EIS modeling data shows the corresponding Beldon's Landing salinity data (EC) for the period October 1984 through October 1991.</p> <p>The increased EC levels in Suisun Marsh are substantial, especially during October</p> | <p>Please see responses to comments 1567- 3 and 1567-4.</p> |

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| | | <p>through March, and will have adverse impacts on Marsh beneficial uses and wetland habitat conditions. The most likely effect of salinity on plants is a general stunting of growth. (Mass 1993) Increased salinity requires plants to expend more energy to obtain water from the soil, thereby reducing the amount of energy available for growth. (Mass 1993) At high levels, salinity can cause physical damage and mortality. (Mass 1993) Plant loss during this seedling stage can reduce the plant population density to suboptimal levels and significantly reduce yields. (Mass 1993) These impacts must be disclosed and mitigated. Any increase in salinity or modification of Delta outflow that increases Suisun Marsh channel water salinity would be detrimental and result in unmitigated impacts to existing beneficial uses and Suisun Marsh wetland habitats.</p> <p>A new DEIR/EIS must be prepared that fully discloses the significant adverse impacts on salinity in the Suisun Marsh channels. Averaging over the meager 16-year record masks and fails to disclose significant salinity increases in individual months and on individual days. Large salinity increases in a given year cannot be offset by possible reductions in salinity many years later. These salinity increases must be avoided or fully mitigated by the Project proponents. The DEIR/EIS must be revised and released again for public review and comment.</p> | |
| 1567 | 7 | <p>[ATT 2:</p> <p>Graph entitled "Suisun Marsh -- Beldon's Landing EC"</p> <p>Figure 2: 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. This plot was prepared by Richard Denton, consultant to Solano County, from BDCP modeling data supplied by DWR.]</p> | <p>The comment describes a graph in an attachment to the comment letter. The attachment does not raise any additional issues related to the environmental analysis in the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS that are not already addressed in the comment referencing the attachment or the Final EIR/EIS.</p> |
| 1567 | 8 | <p>BDCP will result in unacceptable losses of Suisun Marsh managed wetlands, in conflict with the Suisun Marsh Plan and SMPA [Suisun Marsh Preservation Act].</p> <p>The BDCP implementation of the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) goal of 65,000 acres of restoration of tidal natural communities will result in significant and unavoidable impacts to Suisun Marsh from the direct loss and conversion of existing managed wetland habitats, loss of existing wildlife resources, degradation of water quality (increased salinity), and unmitigated impacts to the remaining managed wetlands management capabilities and habitat conditions rendering them unable to support existing wintering waterfowl populations.</p> <p>The BDCP and supporting DEIR/EIS do not identify the significant and unavoidable impacts to the wetland and wildlife resources of the Suisun Marsh or future degradation of water quality conditions in the Suisun Marsh from implementing a significant portion of the BDCP (NCCP/HCP) Goal of 65,000 acres of restoration of tidal natural communities within the Suisun Marsh.</p> <p>BDCP Chapter 3, Part 2, Conservation Measure 1 (CM1) Water Facilities and Operations states that CM1 will implement changes to flow management in the Suisun Marsh by modifying the operation of the Suisun Marsh Salinity Control Structure (SMSCS) via adaptive management or "discontinuing the operation or elimination of the SMSCS" as</p> | <p>Environmental Commitment 4 (BDCP CM4) would consist of the restoration of tidal natural communities and transitional uplands and would be implemented in the same way as described for CM4 in the BDCP and as revised in Final EIR/EIS Appendix 11F, Substantive BDCP Revisions, but over less area. This analysis assumes that none of these acres of tidal restoration will be done in the Suisun Marsh area. Tidal habitat restoration would mitigate for the physical loss of aquatic habitat associated with construction of the north Delta intake facilities. Actual acreage may change based on further discussions with NMFS, USFWS, and CDFW pertaining to the actual value of the current habitat and/or the appropriate ratio of mitigation or based on footprint changes.</p> <p>Please also see Master Responses 5 for a description of the current status of the BDCP.</p> <p>See also Response to Comment 1567-1.</p> |

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| | | part of Conservation Measure 4 (CM4) Tidal Natural Communities Restoration. Implementation of this action would result in a direct violation of Water Rights D1641 Water Quality Objectives For Fish and Wildlife Beneficial Uses - Suisun Marsh numeric salinity standards, the Suisun Marsh Preservation Act, the 1981 Plan of Protection for the Suisun Marsh, and the Revised Suisun Marsh Preservation, Monitoring, and Mitigation Agreements. The BDCP description of the SMSCS purpose and the operational constraints to fish passage is factually inaccurate and fundamentally flawed. | |
| 1567 | 9 | <p>BDCP Section 3.4.1.2.2. The statement that "The Suisun Marsh is currently managed largely to provide seasonal freshwater wetlands, primarily to support waterfowl habitat and recreation" is a factually inaccurate depiction of the brackish nature of the Suisun Marsh tidal and managed wetlands. The Suisun Marsh is a brackish wetland complex, geographically located in the estuary where the fresh water flows of the Delta mix with the salt water of the San Francisco Bay. Brackish wetlands are floristically distinctive and contain a greater diversity of plant species than either the salt marshes of San Francisco Bay or the freshwater wetlands of the Sacramento-San Joaquin Delta (Byrne 2001). This location provides significant seasonal salinity variability and precludes fresh water wetlands from persisting in the Suisun Marsh. This fact makes the Suisun Marsh ecologically rich, diverse, and currently provides significant habitat for many of the targeted native species in the BDCP conservation strategies. Since 1978, the State Water Resources Control Board has maintained Suisun Marsh salinity objectives to "provide water of sufficient quality to the managed wetlands to achieve soil water salinities capable of supporting the plants characteristic of a brackish marsh." (SWRCB D1641 Section 7, p. 40). It has been shown that, at all sampling scales, the more saline San Pablo Bay sites contained significantly fewer species than the Suisun-Delta sites. San Pablo Bay sites contained approximately half the number of species as Suisun-Delta sites. While the greatest contrast in species richness occurs between San Pablo Bay and the Suisun-Delta (Vasey 2012). Additionally, the RSMMPA contractual agreements were signed to protect the brackish characteristics of the Suisun Marsh from increased salinities from the CVP and SWP and other upstream diverters.</p> <p>This section of the BDCP also skillfully omits the fact that the Suisun Marsh Salinity Control Structure was constructed by DWR as part of the 1984 Plan of Protection for the Suisun Marsh and is operated to mitigate for the adverse effects of increased salinities caused by the existing CVP and SWP operations and a portion of adverse effects of other upstream diversions. The operation of this facility is necessary to mitigate for the current and ongoing impacts of the SWP and CVP operations and is needed to meet RSMMPA Salinity Standards and SWRCB D-1614 Water Quality Objective for Fish and Wildlife Beneficial Uses for Suisun Marsh numeric narrative salinity standards.</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, 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. See also Master Response 32 for additional discussion of SWRCB Decision 1641. Please see also responses to comment 1567-1 through 1567-4. 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> |
| 1567 | 10 | BDCP Section 3.4.1.3.4. This section of the BDCP claims that the Suisun Marsh Salinity Control Structure, "can impede the migration and passage of various fish species when operated." (Fujimura et al 2000) This statement and conclusion are inaccurate. Subsequent studies completed by Department of Fish and Wildlife (DFW) in 2001, 2002, 2003, and 2004 (www.water.ca.gov/suisun/dataReports/ , Vincik, R.F. 2002. and Vincik, R.F. et al. 2003) evaluated the use of the existing SMSCS boat locks to improve fish passage. The results of these studies indicate that leaving the boat lock open during the control season when the flashboards are in place at the SMSCS and the radial gates are tidally operated, provided a nearly equivalent fish passage to the non-control season | See response to comment 1567-9. |

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| | | <p>configuration when the flashboards are out and the radial gates are open. The SMSCS has been operated in this configuration since 2005 to provide fish passage for Chinook salmon, steelhead, and green sturgeon. In the future, the SMSCS will need to be operated more frequently to partially address the significant impacts of increased salinity for the BDCP operations and implementation of the NCCP/HCP restoration of tidal natural communities' objectives.</p> <p>This section's Delta Outflow/X2 states Delta Outflow criterion allows provision of sufficient outflow to maintain a desirable salinity regime downstream of Collinsville during the spring and fall. Any operations of the BDCP facilities, diversions (new and existing), and delta outflows upstream of the Suisun Marsh must consider and provide adequate outflow to meet the requirements of the Suisun Marsh salinity standards and required additional SMSCS operations.</p> | |
| 1567 | 11 | <p>BDCP Section 3.4.1.4.3. This section, entitled Flow Constraints, describes the seasonal flow constraints that have been used to estimate the biological effects of diversion operations. Operational flow constraints would be subject to real-time operations adjustments (Section 3.4.1.4.5), but would closely resemble the modeled constraints. All future BDCP facility operations must consider and comply with Water Rights D1641 Water Quality Objectives for Fish and Wildlife Beneficial Uses - Suisun Marsh numeric salinity standards and the Revised Suisun Marsh Preservation, Monitoring, and Mitigation Agreements numeric salinity standards (October through May of each water year).</p> | <p>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 SWRCB 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). See also response to comment 1567-9.</p> |
| 1567 | 12 | <p>BDCP Section 3.4.1.4.4. This section, entitled Decision Trees, describes the decision trees that would be used to set flow constraints with regard to two critical variables, spring outflow and fall outflow, and how they will be implemented. Fish and wildlife agencies will determine these outflow requirements at the time of the initial operations of a new facility, so the impacts of this proposed operation cannot currently be predicted. All future BDCP facility operations must consider and comply with Water Rights D1641 Water Quality Objectives for Fish and Wildlife Beneficial Uses - Suisun Marsh numeric salinity standards and the Revised Suisun Marsh Preservation, Monitoring, and Mitigation Agreements numeric salinity standards (October through May of each water year).</p> | <p>Please see Master Response 44 for additional detail on the Decision Tree approach for Alternative 4. Please note that the new preferred alternative, Alternative 4A, does not utilize the Decision Tree approach for operations. Alternative 4A is modeled with a starting operational scenario of H3+. Please see Chapter 3, Description of Alternatives, of the Final EIR/EIS for additional detail.</p> |
| 1567 | 13 | <p>BDCP Chapter 3, Part 2, Conservation Measure 3 (CM3) Natural Communities Protection and Restoration. This section states "the Implementation Office will establish a system of protected lands in the Plan Area, called a reserve system, by acquiring lands for protection and, in some cases, restoration. The Implementation Office will secure reserve system lands through a variety of mechanisms that will include, but will not be limited to, the: purchase in fee-title, purchase or application of permanent conservation easements (on public or private lands), change of federal- or state-owned lands to more protective land use designation, and permanent agreements with state, federal, and local agencies (e.g., flood control agencies) that commit the parties to the restoration, enhancement, and management of public lands in the reserve system in a manner supporting the biological goals and objectives ... These commitments represent the extent of land that will be acquired to meet preservation requirements; the actual extent that will be acquired will likely be greater, because acquired parcels will include excess amounts of</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 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. For more information about the current status of the BDCP including funding mechanisms, please see Master Response 5. See also Final EIR/EIS Chapter 12 and associated appendices for discussion of impacts to terrestrial wildlife and for wetland resources and Master Response 17 (Biological Resources).</p> |

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| | | <p>target and no target natural communities."</p> <p>Table 3.4.3-1. Natural Community Siting and Reserve Design Requirements calls for:</p> <ul style="list-style-type: none"> - At least 7,000 acres of Tidal Natural Communities in Suisun ROA [Restoration Opportunity Act] - At least 8,100 acres of managed wetlands (1,500 SMHM) habitat in Suisun ROA - At least 2,000 acres of grasslands in Suisun ROA - A portion of 750 acres of vernal pool and alkali seasonal wetland. <p>At a minimum, CM3 will acquire or modify existing land use of 17,000 acres of existing private and public owned managed wetlands and upland areas in the Suisun Marsh (Conservation Zone 11). Today, the entire Suisun Marsh wetland and upland areas are protected by the 1977 Suisun Marsh Preservation Act and the policies and regulation of the BCDC [Bay Conservation and Development Commission] Suisun Marsh Protection Plan. This proposed BDCP "protection" designation will not provide any new level of protection, but instead will result in the fragmentation and direct loss of a significant undisclosed amount of existing managed wetlands. This "Conservation Measure" focuses on the systematic removal of significant private ownership in the marsh and promotes the conversion of existing diked managed waterfowl habitat into tidal wetland or ecological reserves for listed species. This proposed action will result in a significant portion of the existing private landowner constituents of SRCD [Suisun Resource Conservation District] being removed from ownership of waterfowl hunting clubs. Discussions also recommend focusing on publicly owned land first for habitat conversion. DFW [Department of Fish and Wildlife]-Grizzly Island Wildlife Area lands have predominantly been purchased with sportsman dollars and managed for waterfowl wintering habitat, hunting, fishing and public recreation. Many of these lands are dedicated as waterfowl sanctuaries.</p> <p>CM3 describes neither protection nor restoration for the Suisun Marsh. The Suisun Marsh is already protected under existing legislation and Suisun Marsh Protection Plan policies. Instead, the proposed actions under CM3 and CM4 will result in fundamental and negative changes in the existing land use, and result in the systematic elimination of the Suisun Marsh wetland conservation community that has conserved and protected these wetland resources for the past century.</p> | |
| 1567 | 14 | <p>The BDCP proposal, from a simple land use perspective, will yield the conversion/direct loss of thousands of acres of existing managed wetlands and result in the reduction of waterfowl carrying capacity in the Suisun Marsh. These actions will reach a tipping point when the remaining managed wetland habitats can no longer support adequate waterfowl populations nor maintain suitable habitat conditions due to impacts of the Project. Once waterfowl hunting is no longer sustainable because of the impacts of the Proposed Project, the remaining landowners will cease investment in managed wetland operations and maintenance. The loss in critical mass of quality managed wetland habitat from land use change and existing habitat fragmentation will significantly reduce wintering waterfowl populations and effectively eliminate SRCD and the private duck clubs. These effects of BDCP habitat conservation strategy, future location, and acreage</p> | <p>Loss of wetlands is analyzed in Final EIR/EIS Chapter 12, Terrestrial Biological Resources.</p> <p>Numerous comments were received that focused on various elements of the BDCP. 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.</p> |

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| | | are not disclosed nor mitigated for in the BDCP or the DEIR/EIS. | |
| 1567 | 15 | <p>BDCP Plan Chapter 3, Part 2, Conservation Measure 4 (CM4) Tidal Natural Communities Restoration, Section 3.4.1.3.4. This section claims, "As levees are breached for tidal restoration under CM4, salinity levels may increase through much of Suisun Marsh." BDCP's tidal restoration objectives in Conservation Measure 4 (CM4) Tidal Natural Communities Restoration will have significant and unavoidable negative impacts on the existing Suisun Marsh wetlands and wildlife resources and habitat conditions. Suisun Resource Conservation District (SRCD) has grave concerns with the extent of the acreage objectives, without identifying where or when most of this activity will occur in the Suisun Marsh. The proposed habitat restoration objectives are identified at a general level over the next 40 years in BDCP and the HCP/NCCP documents. Without defining the site-specific locations and acreages of proposed habitat restoration projects in Conservation Zone 11 (Suisun Marsh), it is impossible to identify and evaluate the site specific, regional and cumulative impacts of proposed actions.</p> <p>BDCP is calling for at least 7,000 acres (14% of existing managed wetlands) to be restored to tidal wetland in Suisun Marsh. This objective is consistent with the high end of the Suisun Marsh Habitat Management, Preservation and Restoration Plan (SMP) restoration targets of 5,000 to 7,000 acres over the next 30 years. Any tidal restoration acreage over that 7,000 target should be completed in years 31 to 50 of the BDCP program. The Suisun Marsh Plan also requires that tidal restoration projects must be regionally distributed (See Table 2-4 SMP 2011 page 2-17) with strict assurances, detailed environmental commitments, avoidance and minimization measures to be implemented, and salinity modeling to be completed as part of the project development and post construction verification. BDCP makes no commitment to complete post restoration water quality monitoring to verify if the pre-project modeling results are accurate and if appropriate mitigation to address these unanticipated impacts has been adequately addressed on adjacent lands. If BDCP moves forward, SRCD requests a commitment from BDCP to comply with the SMP objectives, procedures, guidelines, regional distribution of tidal restoration and agreement to the SMP management structure, including the SMP Principals Management Group and Adaptive Management Advisory Team.</p> | As described in response to comment 1567-13, the originally proposed habitat restoration measures and CMs would not be included as part of the Proposed Action. See response to comment 1567-13. For a detailed response to concerns about CM4 and other proposed conservation measures, see Master Response 5. |
| 1567 | 16 | BDCP significantly diverges from the Suisun Marsh Plan (SMP) in its enhancement objectives. The SMP's objective is also to enhance 44,000 to 46,000 acres of managed wetlands concurrently with the tidal restoration activities. This approach allows phased implementation and balances existing resource protection and management needs with future tidal restoration. Instead, BDCP omits the fact that tidal restoration will directly impact existing wetlands and wildlife resources, and has provided no commitment to offset these losses or enhance the remained managed wetland habitats in the Suisun Marsh. CM3 lists an objective to establish a reserve of at least 8,100 acres of managed wetlands (1,500 for salt marsh harvest mouse) habitat in the Suisun Restoration Opportunity Area, but fails to describe the habitat management objective of this acreage and future long-term commitment to maintain it. BDCP must commit to invest in all the remaining managed wetlands, not just a hand full [sic]. In this regard, all Suisun Marsh managed wetlands are dependent on exterior levee integrity. The existing managed wetlands are islands, protected by exterior levees. If an exterior levee fails, then all of the adjacent managed wetlands on that island will be lost, including any of the 8,100 acres of the BDCP managed wetlands "conservation areas". Additionally, exterior levee failure in | As described in response to comment 1567-13, the originally proposed habitat restoration measures and CMs would not be included as part of the Proposed Action. See response to comment 1567-13. For a detailed response to concerns about CM4 and other proposed conservation measures, see Master Response 5. See also Final EIR/EIS Chapter 12 and associated appendices for discussion of impacts to terrestrial wildlife and for wetland resources and Master Response 17 (Biological Resources). |

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| | | the Suisun Marsh would result in unplanned tidal restoration, likely in a poor location, causing detrimental ecological conditions for targeted fish species. | |
| 1567 | 17 | <p>Tidal restoration projects will have significant and undisclosed impacts to adjacent managed wetlands operations and habitat conditions. These impacts may include increased salinity of applied water for habitat management, decreased life expectancy of adjacent managed wetland water management infrastructure, and attenuated tidal stage reducing existing gravity drainage capacity of adjacent managed wetlands. Tidal restoration projects will cause increased channel velocities (causing scour of channel depths), thereby undermining and destabilizing existing managed wetlands exterior levee foundations, and increasing exterior levee maintenance costs. Managed wetlands in the vicinity of a tidal restoration project could be subjected to all of the impacts on facilities and management capabilities listed above. BDCP should establish a significant long-term funding source to facilitate needed future intensive wetland management activities as a result of any increase in salinity from existing baseline conditions. Wetland management objectives should be focused on completion of multiple spring leach cycles, preventing elevation of soil salinities, optimizing water management infrastructure, and offsetting increased pumping costs from dampened tidal stage. None of these impacts are adequately addressed in the BDCP DEIR/EIS, nor is there adequate mitigation proposed to address these site specific or regional impacts on managed wetlands. Any BDCP restoration objective that exceeds the Suisun Marsh Plan tidal restoration objectives will have significant incremental and cumulative impacts on decreasing the managed wetlands acres in the marsh. This will further reduce waterfowl carrying capacity, managed wetland management capabilities, and fragmentation of existing waterfowl habitat. Local and regional salinity impacts from tidal restoration projects can be significantly influenced by breach location, size, depth, and salinity gradient in the adjacent slough at the breach location. The programmatic nature of the DEIR/EIS fails to disclose these impacts and the cumulative impacts from other habitat restorations action occurring concurrently in other Delta Restoration Opportunity Areas.</p> <p>BDCP CM4 has a long-term tidal restoration target of 11,500 acres or more (22% of existing managed wetlands) of Suisun Marsh managed wetlands. CM4 also calls for the conservation of an additional 8,100 acres of existing managed wetlands protected habitats for covered species like the salt marsh harvest mouse. This could effectively reduce private ownership in the marsh by up to 50%, and modify or eliminate existing waterfowl management activities on the remaining Suisun Marsh managed wetlands.</p> <p>BDCP currently has no metric nor method of evaluating the existing wetland resource values and offsetting these direct and indirect losses from tidal restoration of managed wetlands and waterfowl habitats in Suisun Marsh. To address this deficiency during BDCP development, Ducks Unlimited, in partnership with the Central Valley Joint Venture, U.C. Davis, Oregon State University, U.S. Geological [Survey], and Suisun Resource Conservation District proposed to BDCP management the following scientific study: "Restoring Tidal Flow to Managed Wetlands in Suisun Marsh: Implications for Wintering Waterfowl and Non-Tidal Wetland Management". This study would provide detailed information on waterfowl food production in tidal and managed wetland habitats and is needed to address the following critical uncertainties in meeting BDCP goals, but was never considered by BDCP managers for implementation:</p> | As described in response to comment 1567-13, the originally proposed habitat restoration measures and many CMs would not be included as part of the Proposed Action. See response to comment 1567-13. For a detailed response to concerns about CM4 and other proposed conservation measures, see Master Response 5. See also Final EIR/EIS Chapter 12 and associated appendices for discussion of impacts to terrestrial wildlife and for wetland resources and Master Response 17 (Biological Resources). |

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| | | <p>(1) What is the carrying capacity of the Suisun Marsh for waterfowl during winter, based on current habitat conditions?</p> <p>(2) How may future tidal restoration activities influence waterfowl carrying capacity?</p> <p>(3) How do management activities influence food production in diked wetlands, and consequently how can they be enhanced to increase carrying capacity?</p> | |
| 1567 | 18 | <p>In conclusion, Suisun Resource Conservation District (SRCD) requests that DWR not pursue the BDCP Project, but at a minimum revise and recirculate the DEIR/EIS to address the issues and inadequacies that SRCD has identified in this comment letter. Throughout the BDCP DEIR/EIS review period and at public informational meetings over the past few months, it has been repeatedly stated that BDCP implementation (the construction of a new point of diversion, required mitigation, and habitat conservation actions) would continue to comply with existing D1641 water quality standards. As SRCD has identified, the BDCP DEIR/EIS modeling results and effects analysis states that, "salinity levels in the Suisun Marsh will increase", which is in direct contradiction with the claim that water quality objectives will continue to be met under D1641 or the Revised Suisun Marsh Preservation Agreement. Implementing a project that systematically degrades and reduces the existing Suisun Marsh managed wetland habitats, functions, values and water quality is unthinkable and unsupportable by SRCD.</p> | <p>Please note as described in response to comment 1567-1 that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. See also responses to comments 1567-2 through 1567-12.</p> <p>The potential for water conveyance operations to affect salinity conditions in the Delta (including Suisun Marsh) under existing conditions and future no action conditions, and with implementation of each project alternative (including conservation measures), is assessed in detail in Chapter 8, Water Quality, of the EIR/EIS for the salinity-related parameters chloride (Impact WQ-7) and electrical conductivity (Impact WQ-11). The modeling results confirm that EC levels in Suisun Marsh would not be substantially different from Existing Conditions or the No Action Alternative, considering real time operations.</p> |
| 1568 | 1 | <p>We are proud to have invested billions of dollars in the last 20 years to improve SWP reliability by using smart planning and implementing water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, new storage, and improved regional coordination. To date, we have also invested over \$100 million in the eight-year BDCP planning and stakeholder effort to secure long-term SWP reliability. The State Water Contractors have been investing in the SWP for more than four decades, and have additionally invested in regional storage and conveyance to allow our service areas to capture water when it is plentiful and reduce demands on imported supplies during dry and critically dry years. These investments will effectively become stranded if water deliveries from the project continue to degrade.</p> | <p>This comment is consistent with information presented in Chapter 1, Introduction, of the EIR/EIS.</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 EIR/S.</p> |
| 1568 | 2 | <p>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 has been developed as provided for in both state and federal endangered species protection laws. Alternative No. 4 of the Draft BDCP DEIR/DEIS 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.</p> | <p>This comment is consistent with the information regarding the SWP presented in Chapter 1, Introduction, of the EIR/EIS.</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 EIR/S.</p> |
| 1568 | 3 | <p>State Water Contractors Support for BDCP Preferred Alternative</p> <p>SWC strongly supports the CEQA BDCP Preferred Alternative No. 4 with the expectation</p> | <p>The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.</p> |

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| | | <p>that the state and federal governments will move steadily forward with its adoption by issuing the notice of determination and Record of Decision ("ROD") by the end of this year, and by implementing the Alternative No. 4 in accordance with the BDCP schedule.</p> <p>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 will require 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</p> | |
| 1568 | 4 | <p>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, in 2011, a working draft BDCP was released. Next, in 2012 and 2013, administrative drafts of the BDCP and DEIR/EIS 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.</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 EIR/S.</p> |
| 1568 | 5 | <p>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 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 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.</p> |
| 1568 | 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, and 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</p> | <p>The comment is consistent with the acknowledgement that 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 (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).</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</p> |

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| | | goals, the BDCP aims to restore export water supplies to levels that were realized before the 2008-2009 Biological Opinions. | 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. |
| 1568 | 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 a possibility. 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 in order 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. The State Water Contractors 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>State Water Contractors 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 Alternative No. 4.</p> | The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. |
| 1569 | 1 | <p>Reclamation District 830 (RD 830) is pleased to submit the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) for the Bay Delta Conservation Plan (BDCP).</p> <p>Comment 1: Alternatives development in Chapter 3 of the Bay Delta Conservation Plan Draft EIR/EIS is inadequate, and failed to consider a full range of alternatives. A full range of statewide alternatives such as the increased use of recycled water, implementation of desalinization facilities, water conservation methods, and modified farming/cropping practices to reduce reliance on surface water supplies should have been included and analyzed in the range of alternatives developed.</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.</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 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 and Master Response 6 regarding demand management.</p> |
| 1569 | 2 | <p>Comment 2: The California Environmental Quality Act (CEQA) provides that the project description for the DEIR/DEIS for the BDCP must include all relevant parts of the BDCP, including reasonably foreseeable future expansion or other activities that are part of the BDCP (Emphasis added.) Laurel Heights Improvement Association v. Regents of Univ. of Cal. (1988) 47 C3d 376. CEQA also requires that the lead agency, in this case the BDCP Proponents, may not split the BDCP, a single large project, into small pieces so as to avoid environmental review of the entire project. Orinda Association v. Board of Supervisors (1986) 182 CA 3d 1145, 1171. The DEIR/DEIS fails to meet this standard and therefore is inadequate because the project description does not include nor does the DEIR/DEIS analyze the 2014 Drought Emergency Temporary Rock Barriers, Steamboat and Sutter</p> | Please refer to Master Response 8, Whole of the Action. Please also see Master Response 47 for information on drought operations and the proposed project. Please note that the modeling to analyze possible future impacts of the project alternatives included historical water year types that include drought conditions. |

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| | | <p>Sloughs and False River, California, DWR March 2014, Sheets 1 - 15 ("Barriers").</p> <p>These Barriers are both reasonably foreseeable and part of the BDCP for several reasons, including: (1) during the 1976-77 drought, rock barriers were placed in several Delta channels, including Sutter Slough and Dutch Slough, [Footnote 1: Protecting Water Supplies and Delta Water Quality with Emergency Drought Barriers, DWR, March 2014, p.1.] and (2) these barriers are addressed in DWR, Delta Drought Emergency Barriers, Administrative Draft, April 2009. Even if the Barriers are not explicitly included in the Project Description of the BDCP DEIR/DEIS, they are de facto an integral part of the BDCP. As the BDCP DEIR/DEIS acknowledges in Chapter 8 that increases in salinity at multiple locations within the Delta will occur as part of the project, the BDCP DEIR/DEIS must analyze the need for rock barriers as part of the project. Although sometimes described with the adjectives "temporary" or "emergency," unfortunately these barriers are likely to become, especially in the western Delta, permanent, routinely used defenses against salinity intrusion in response to implementation of the BDCP and California's cycle of recurring droughts. CEQA demands that the DEIR/DEIS analyze the Barriers because they are both reasonably foreseeable and activities that are part of the BDCP. To allow the Barriers to be analyzed separately in other CEQA documents constitutes impermissible piecemealing. [Footnote 2: A lead agency may not split a single large project into small pieces so as to avoid environmental review of the entire project. Orinda Association v. Board of Supervisors (1986) 182 CA 3d 1145, 1171.]</p> | |
| 1569 | 3 | <p>To state it in concrete terms, the authors of the BDCP DEIR/DEIS must revise Chapter 8: Water Quality in order to analyze the short and long term impacts on salinity in the western Delta of the installation of the Barriers. In particular, the BDCP DEIR/DEIS authors must analyze the impacts of the installation of barriers as a result of the implementation of the BDCP as well as how barrier installations in response to future droughts would change once the BDCP is implemented.</p> <p>Comment 3: The DEIR/DEIS does not adequately analyze, in a focused, specific and coherent manner, the impact of the salinity intrusion which will be caused by the BDCP on groundwater wells on Jersey Island as wells as the riparian and appropriative water rights held by various entities in the western Delta. These entities include but are not limited to Reclamation District 830.</p> <p>RD 830 maintains the levees on Jersey Island and is the holder of a riparian right to divert water from the San Joaquin and False Rivers, Piper, Taylor and Dutch Sloughs. The water right License No.1310, Face Value 14,560 acre-ft./year.</p> <p>The DEIR/DEIS presents several discrete, disparate discussions on the subject of salinity intrusion in the western Delta. For example, Appendix 3E discusses Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies. In Appendix page 3E-3 in Section 3E.2.2, the DEIR/DEIS discusses Salinity/Seawater Intrusion. In Chapter 8, Water Quality, the DEIR/DEIS contains numerous references to EC (electrical conductivity) objectives as measured at Jersey Point. Chapter 8 at pages 8-562 and 563 discusses NEPA Effects and presents CEQA conclusions at pages 8-563 and 564.</p> <p>However, as previously noted the DEIR/DEIS does not adequately analyze the impact of the salinity intrusion caused by the BDCP on the riparian and appropriative water rights</p> | <p>Impacts of the BDCP on salinity-related parameters, and effects to diverters of Delta waters is addressed via assessment of chloride and EC relative to Bay-Delta Water Quality Control Plan (WQCP) objectives in Chapter 8, Water Quality in impacts WQ-7 and WQ-8 for chloride and WQ-11 and WQ-12 for EC. The WQCP EC objectives at established compliance points are for protection of agricultural use and chloride objectives are established for municipal and industrial uses. A component of the impact assessment is evaluating the potential for the alternatives to result in increased exceedances of these objectives. 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.</p> <p>Please also see Master Response 14, which provides additional information on salinity.</p> <p>Alternative 4A would have substantially less effect on Delta water quality such that significant impacts were 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.</p> <p>Impacts of the BDCP on salinity-related parameters, and effects to diverters of Delta waters is addressed via assessment of chloride and EC relative to Bay-Delta Water Quality Control Plan (WQCP) objectives in Chapter 8, Water Quality in impacts WQ-7 and WQ-8 for chloride and WQ-11 and WQ-12 for EC. The WQCP EC objectives at established compliance points are for protection of agricultural use and chloride objectives are established for municipal and industrial uses. A component of the impact assessment is evaluating the potential for the alternatives to result in increased exceedances of these objectives.</p> <p>Please refer to Chapter 8, Water Quality, in the Final EIR/EIS for more information on the effects on the</p> |

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| | | held by various entities in the western Delta. | project and associated environmental commitments on water quality. An overview of the water quality impact assessment methodology and results is also provided in Master Response 30. |
| 1569 | 4 | <p>Comment 4: At page 29-20, lines 12 through 21, the DEIR/DEIS states:</p> <p>Resilience/Adaptation:</p> <p>The BDCP alternatives, with the exception of Alternative 9, would not add resiliency to existing levees; levee fragility would remain high and increase with time as in the No Action/No Project Alternative. However, BDCP Alternatives 1A-8 would provide additional adaptability to catastrophic failure of Delta levees. By providing an alternate conveyance route around the Delta, Alternatives 1A-8 provide a mechanism to continue making water deliveries to SWP/CVP contractors and local and in-Delta water users with conveyance interties even if the Delta were temporarily disrupted by a catastrophic levee failure. Alternative 9 adds additional resiliency to the Delta by strengthening and reinforcing levees critical to the through-Delta conveyance route, however, this alternative does not increase the adaptive capacity of the system.</p> <p>RD 830 does not dispute this statement. However, the DEIR/DEIS should, but unfortunately does not, analyze the impacts of "providing an alternate conveyance route around the Delta" on the availability and willingness of the state legislature and State Department of Water Resources (DWR) to provide funding to local reclamation districts for ongoing levee repair and maintenance. In other words, the availability of an alternative conveyance route around the Delta could potentially serve as a disincentive for DWR's funding of levee repair and maintenance because "worst case," in the event of levee failure and salinity intrusion into the Delta, there is an alternative means to route fresh water around rather than through the Delta.</p> | <p>Please see Appendix 6A, FEIR/EIS, for discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the BDCP/CWF. Under a dual conveyance system as proposed under the California Water Fix (BDCP/CWF), SWP and CVP operations will still be vulnerable to levee failure events, since approximately 50% of CVP and SWP Delta exports will continue to be pumped from the south Delta export facilities. As such, levee improvements and flood management opportunities will continue to be important to the success of CVP and SWP Delta exports, regardless of BDCP/CWF implementation. Levees are an important public safety resource and the proposed project would not change State or Federal flood protection policies 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> <p>Also see the Final EIR/EIS, Chapter 6, Appendix 6A for more information.</p> |
| 1569 | 5 | <p>Comment 5: The Draft EIR/EIS analysis assumes habitat restoration will be implemented and operating as fully intended under both the Early Long Term and Late Long Term scenarios. Even if the land is acquired for the proposed projects, habitat restoration is a time-required process. Further, it is possible, if not probable, that North Delta Diversion (NDD) could be constructed and operate for an extended period of time without the habitat in place. The effects of NDD operations without habitat could have detrimental impacts, and should be quantified. For these reasons, the BDCP should analyze the effects of the NDD to assess both the short term and long term impacts without the habitat in place. The BDCP should also analyze the effects of the NDD to assess both the short term and long term impacts without climate change. In the event the climate change assumptions are inaccurate for either timing or magnitude, the incremental impact of the NDD should be known. These analyses should be performed with updated CalSim II operations and DSM2 hydrodynamics models. Appendix A provides a Technical Memorandum prepared by MBK Engineers that further discusses this comment.</p> | Please see Master Response 5, which provides additional information on the BDCP. |
| 1569 | 6 | [ATT 1: Technical Comments on Bay-Delta Conservation Plan Modeling. Provided by MBK Engineers for Reclamation District 830.] | <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 the comment referencing the attachment or the Final EIR/EIS. Please see below, starting with response to comment 1569-7, for responses to comments contained in this attachment.</p> <p>For specific responses to other commenters letters, please reference the Comment/Response table to locate</p> |

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| | | | those responses. Please also see Master Response 30. |
| 1569 | 7 | <p>This technical memorandum is a summary of MBK Engineers' findings and opinions on the hydrodynamic modeling performed in support of the draft environmental document for the Bay-Delta Conservation Plan (BDCP) for Reclamation District No. 830. The results of that modeling are summarized in Appendix 5A to the draft BDCP EIR/EIS.</p> <p>This review of the BDCP modeling focuses on water flow, stage, flow velocity, and water quality in the vicinity of Jersey Island.</p> <p>No Action Alternative:</p> <p>Assumptions used in water operations modeling in CalSim II and in Delta hydrodynamics in DSM2 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 changes to hydrology caused by climate change.</p> <p>Climate Change:</p> <p>Analysis presented in the BDCP draft plan and draft EIR/EIS attempts to incorporate the effects of climate change at two future climate periods: Early Long Term (ELT) at approximately the year 2025; and Late Long Term (LLT) 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 2: 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. These time-series were then input to the CalSim II model to perform water operations modeling and determine Delta inflow, outflow, and exports.</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. Sea level rise is evaluated in greater detail through use of DSM2 using output from CalSim II. 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 [Footnote 3: 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.], we instead focus on effects of BDCP by comparing with project modeling to without project modeling.</p> | <p>The comment is consistent with information contained in Appendix 5A, Modeling Technical Appendix, of the Draft EIR/EIS.</p> <p>Please see response to comment 1569-5.</p> |
| 1569 | 8 | <p>There are three without Project ("baseline" or "no action") modeling scenarios used for the BDCP modeling analysis: No Action Alternative (NAA) [Footnote 4: 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 5: BDCP EIR/EIS Appendix 5A, Section B, Table</p> | <p>Please see response to comment 1569-5.</p> |

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| | | B-8.] The only difference between these scenarios is the climate-related changes made for the ELT and LLT conditions (Table 1). | |
| 1569 | 9 | [ATT 1: ATT1, Table 1, Climate Change Assumptions under No Action Alternative Scenarios.] | Please see response to comment 1569-8 regarding comment related to this table. |
| 1569 | 10 | <p>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 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 No Action Alternative--Early Long Term scenario and the No Action Alternative--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 Old and Middle Rivers 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; acquiring 25,000 acres and 65,000 acres of in-Delta lands for ELT and LLT environments, respectively, for habitat restoration; 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 No Action Alternative 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>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"> * Low Outflow Scenario (LOS), otherwise known as operational scenario H1, assumes existing spring X2 standard and the removal of the existing fall X2 standard; * High Outflow Scenario (HOS), otherwise known as H4, contemplates the existing fall X2 standard and providing additional outflow during the spring; * Evaluated Starting Operations (ESO), otherwise known as H3, assumes continuation | <p>The comment is generally consistent with information contained in Appendix 5A, Modeling Technical Appendix, of the EIR/EIS.</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.</p> <p>Please see response to comment 1569-5.</p> |

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| | | <p>of the existing X2 spring and fall standards;</p> <p>* Enhanced spring outflow only (not evaluated in the December 2013 Draft BDCP), scenario H2, assumes additional spring outflow and no fall X2 standards.</p> <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>Our review examines the ESO (or H3) scenario (labeled Alt 4-ELT or Alt 4-LLT) because it employs the same X2 standards as are implemented in NAA-ELT and NAA-LLT. This allowed the Reviewers to focus the analysis on the effects of the BDCP operations independent of the possible change in the X2 standard.</p> | |
| 1569 | 11 | <p>Method of Review:</p> <p>Our approach extracts output from DSM2 and compares hydrodynamics and salinity of the alternative against the baseline, where Alt 4 Early Long Term is compared to No Action Alternative ELT and Alt 4 Late Long Term is compared to NAA LLT. DSM2 simulates from October 1974 to September 1991 and produces output at 15-minute intervals. Daily maximums, minimums, and averages are then calculated from the 15-minute data. To provide meaning to the data, daily exceedance charts were produced. Percent exceedance describes the portion of the dataset, expressed in percentages, that exceeds a specific level. For example, a 90% flow exceedance of 200,000 cfs means that 90% of the daily flow during the simulated period, October 1974</p> <p>to September 1991 is greater than 200,000 cfs. Exceedances provide an overall view of the entire dataset in an ordered manner. When alternatives are plotted together, differences between the alternatives are easily distinguishable and potential project effects can be identified.</p> <p>Effects to hydrodynamics were reviewed for the San Joaquin River at Jersey Point, False River, and Dutch Slough. Effects on salinity were reviewed at Jersey Point only. For all locations, changes in flow, stage, and velocity due to BDCP Alt 4 are similar. Figure 1 through Figure 9 (see Attachments) illustrates simulated flows, stage, and velocities in the San Joaquin River at Jersey Point, False River approximately 9,000 feet west of Webb Tract, and Dutch Slough approximately 7,400 feet west of Bethel Island under the NAA ELT and Alt 4 ELT. Figure 10 through Figure 19 (see Attachments) illustrates simulated flows, stage, and velocities at the same locations for NAA LLT and Alt 4 LLT.</p> <p>In general, daily maximum flows decrease under the Alt 4 scenarios when compared to No Action Alternative scenarios, while the daily minimum flows increase. For example, the daily maximum flows in the San Joaquin River are reduced under Alt 4 ELT and Alt 4 LLT by 11 thousand cubic feet per second (kcfs) and 20 kcfs respectively compared to the NAA scenarios, while daily low flows increase by 15 kcfs under Alt 4 ELT and 23 kcfs under Alt 4 LLT. A similar pattern of effects are observed for stage and velocity at the other locations reviewed. This effect could be explained by the transport of flood and ebb tides into proposed habitat areas, which provides a dampening effect to the</p> | <p>This comment includes information consistent with information included in the Draft EIR/EIS. The Partially Recirculated Draft EIR/Supplemental Draft EIS includes analysis of operations under Alternative 4 without habitat restoration assumptions.</p> <p>Please see response to comment 1569-5.</p> |

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| | | <p>hydrodynamics in the Delta system. The dampening effects are much greater under Alt 4 LLT compared with Alt 4 ELT, likely due to larger habitat restoration area in the LLT (65,000 acres) versus ELT (25,000 acres).</p> <p>Dampening effects of the habitat restoration can be illustrated in river stage. When tides are allowed to disperse over a larger area which will be created by the habitat projects, stage in the Delta system will be reduced, as illustrated in Figure 2, Figure 5, and Figure 8. Daily maximum stage around Jersey Island is reduced under Alt 4 ELT by approximately 0.2 feet and daily minimum stage is increased by approximately 0.2 feet when compared to NAA ELT scenario. Daily maximum stage around Jersey Island is reduced under Alt 4 LLT by approximately 0.3 feet and daily minimum stage is increased by approximately 0.4 feet when compared to NAA LLT scenarios as illustrated in Figure 11, Figure 14, and Figure 17.</p> <p>Salinity at Jersey Point was extracted from DSM2 and average monthly Electrical Conductivity (EC) was calculated and then tabulated in Table 2.</p> <p>The EIR/EIS did not analyze the NDD without habitat restoration. Therefore, the impacts of the project cannot be adequately assessed if the North Delta Diversion were to begin operation while the project faces challenges in habitat land acquisition. Furthermore, habitat restoration will require time to operate at its intended functionality.</p> | |
| 1569 | 12 | <p>Recommendations:</p> <p>The EIR/EIS analysis assumes habitat restoration will be implemented and operating as fully intended under both the ELT and LLT scenarios. Even if the land is acquired for the proposed projects, habitat restoration is a time-required process. Further, it is possible, if not probable, that the North Delta Diversion could be constructed and operate for an extended period of time without the habitat in place. The effects of NDD operations without habitat could have detrimental impacts, and should be quantified. For these reasons the BDCP should analyze the effects of the NDD to assess both the short term and long term impacts without the habitat in place. BDCP should also analyze the effects of the NOD to assess both the short term and long term impacts without climate change. In the event the climate change assumptions are inaccurate for either timing or magnitude, the incremental impact of the NOD should be known. These analyses should be performed with updated CalSim II operations and DSM2 hydrodynamics models.</p> | Please see Response to Comment 1569-5. |
| 1569 | 13 | [ATT 1: ATT2, Figure 1, graph depicting Daily Flow on the San Joaquin River at Jersey Point under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 14 | [ATT 1: ATT3, Figure 2, graph depicting Daily Stage on the San Joaquin River at Jersey Point under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 15 | [ATT 1: ATT4, Figure 3, graph depicting Daily Velocities on the San Joaquin River at Jersey Point under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |

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| 1569 | 16 | [ATT 1: ATT5, Figure 4, graph depicting Daily Flow in False River (~9,000 feet west of Webb Tract) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 17 | [ATT 1: ATT6, Figure 5, graph depicting Daily Stage in False River (~9,000 feet west of Webb Tract) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 18 | [ATT 1: ATT7, Figure 6, graph depicting Daily Velocities in False River (~9,000 feet west of Webb Tract) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 19 | [ATT 1: ATT8, Figure 7, graph depicting Daily Flow in Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 20 | [ATT 1: ATT9, Figure 8, graph depicting Daily Stage in Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 21 | [ATT 1: ATT10, Figure 9, graph depicting Daily Velocities in Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 22 | [ATT 1: ATT11, Figure 10, graph depicting Daily Flow in the San Joaquin River at Jersey Point under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 23 | [ATT 1: ATT12, Figure 11, graph depicting Daily Stage in the San Joaquin River at Jersey Point under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 24 | [ATT 1: ATT13, Figure 12, graph depicting Daily Velocities in the San Joaquin River at Jersey Point under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 25 | [ATT 1: ATT14, Figure 13, graph depicting Daily Flow on False River (~9,000 feet west of Webb Tract) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 26 | [ATT 1: ATT15, Figure 14, graph depicting Daily Stage on False River (~9,000 feet west of Webb Tract) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 27 | [ATT 1: ATT16, Figure 15, graph depicting Daily Velocities on False River (~9,000 feet west of Webb Tract) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 28 | [ATT 1: ATT17, Figure 16, graph depicting Daily Flow on Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | |

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| | | Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 29 | [ATT 1: ATT18, Figure 17, graph depicting Daily Stage on Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 30 | [ATT 1: ATT19, Figure 18, graph depicting Daily Velocities on Dutch Slough (~7,400 feet west of Bethel Island) under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 31 | [ATT 1: ATT20, Figure 19, graph depicting Electrical Conductivity in the San Joaquin River at Jersey Point under the under No Action Alternative-Early Long Term and Alternative 4-Early Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 32 | [ATT 1: ATT21, Figure 20, graph depicting Electrical Conductivity in the San Joaquin River at Jersey Point under the under No Action Alternative-Late Long Term and Alternative 4-Late Long Term.] | Please see response to comment 1569-11 regarding comment related to this figure. |
| 1569 | 33 | [ATT 1: ATT22, Table 2, Average Monthly Water Quality at Jersey Point (EC, mmhos/cm)] | Please see response to comment 1569-11 regarding comment related to this figure. |