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2700	1	No one can make a conscionable decision to proceed with the Delta Tunnels. The tunnels will not be able to (legally) move any more water than the current system today so to spend $15 billion on this system is ludicrous. If the long-term plan is to eventually move more water through this system, then this is a water grab by the central farmers and southern part of the state with a huge environmental expense to Northern California.	The Proposed Project was developed to make physical and operational improvements to the SWP system in the Delta, water supplies of the SWP and CVP for users located south of the Delta, and Delta water quality consistent with statutory and contractual obligations of the SWP and CVP, as described in Section 2.3 of Chapter 2, Project Objectives and Purpose and Need, of the EIR/EIS. As described in Section 5.3.1 of Chapter 5, Water Supply, the Proposed Project and action alternatives in the EIR/EIS only would affect SWP and CVP water operations and would not affect water available to other surface water rights holders in the Delta and other parts of California. Action alternatives would increase flexibility for SWP and CVP operations while reducing adverse impacts to aquatic resources and water quality. For example, the action alternatives would result in more water exported in wetter years and less water exported drier water years. For example, in Critical water year types (as shown in Tables C-10-1-14 through C-10-1-25 of Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS). The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures). Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5 for more information on costs and funding.
2700	2	I would much rather see that money used to rebuild the current Delta infrastructure and to also help Valley farmers implement a more sustainable model with a reduction of water-intensive crops and a move to drip systems. Growing crops like hay, cotton and almonds for export in California does not make sense and is not equitable for the Northern Californian environment or its residents.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 34 for additional details on the determination of beneficial use and Master Response 3 for additional details on the project purpose and need.
2701	1	We are not being allowed to vote on these "underground canals." Even the legislature cannot vote on this proposal. The only way to stop it is to voice our opposition during the comment period, which ends this Friday.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2701	2	Please preserve clean, fresh water for drinking, recreation, fishing, industry, and agriculture. Both habitat and endangered species would be affected adversely if the Delta tunnels are built. Without increased, not decreased, fresh water flows, the San Francisco Bay Delta ecosystem will continue to degrade. Our bay will die along with the newly created wetlands.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2701	3	Los Angeles drained the Owens Valley and they have senior rights to the Colorado River. Now they want our Sacramento River water as well. International water experts promote local solutions. Clearly California has a serious water issue, but building an exorbitantly expensive, one-size-fits-all project will not solve the state's water supply problem. Our water supply issues should be solved locally with lower use, infrastructure repairs as well as water capture and reuse.	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. Importantly, all water exported by the SWP and CVP is subject to the existing water rights of those two agencies. Exports do not come at the expense of other water rights holders. The proposed project and its alternatives analyzed in the EIR/EIS only include the use of water from existing SWP and CVP water rights or voluntary water transfers from other water rights holders. The proposed project and its alternatives do not reduce the protections for other water right holders. The proposed project's facilities, including water intakes and pumping plants, would be operated in accordance with permits issued by, U.S. Fish and Wildlife Service, National Marine Fisheries Service, State Department of Fish and Wildlife, and the State Water Resources Control Board, among other agencies. The proposed project would be permitted to operate with regulatory protections, including river water levels and flow, which would be determined based upon how much water is actually available in the system, the presence of threatened fish species, and water quality standards.

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			Through the Legislature and through executive agencies, California has embraced water conservation on numerous fronts, as have many California water agencies. Many of these efforts are highlighted in Appendix 1C, Demand Management Measures, EIR/EIS, which describes conservation, water use efficiency, and other sources of water supply, including recycled water. While these elements are not proposed as part of the project, the Lead Agencies recognize that they are important tools in managing California's water resources. It is important to note that the proposed project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. For more information regarding alternatives development, water demand management, and purpose and need please see Master Response 4, 6, and 3, respectively.
2701	4	Why should we let Metropolitan Water, which is the largest wholesaler of water in the country, make a profit on water that is sent from the Sacramento River? You and I will be paying for the tunnels.	For more information regarding MWD Water Supply please see Master Response 35. For more information regarding cost of the proposed project please see Master Response 5.
2701	5	We Californians have reduced our water use by about 33% just this year. We need to learn to live with our limited water supply. Due to climate change, California will not be getting more precipitation. Farmers, too, need to make choices about which crops they grow. Some crops, like alfalfa, should not be grown in California. They should be grown in parts of the country with higher rainfall. There are far better and less costly solutions to providing a reliable water supply to all Californians.	More than two-thirds of the residents of the state and more than two million acres of highly productive farm land receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the project proponents have no authority to designate what water is used for. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.
2702	1	I am writing to comment on the Bay Delta Conservation Plan. Specifically, regarding the placement of power lines, both temporary and permanent, associated with the project. I am especially concerned about the effect on birds. I have recently read that Fish and Game is reviewing the effect of power lines on bird populations, especially migrating birds. I know that water birds concentrate in the area being considered for this project. Power lines are discussed in the EIR, but I saw only their impact on agriculture. I did not see the issue of their effect on concentrated population of birds. It is well known that migrating populations of cranes, for example, are forced into smaller areas of the Delta as the drought continues. I am concerned that this issue will lead to diminishment of these already stressed and decreasing populations of birds.	Chapter 12 of the EIR/EIS, Terrestrial Biological Resources, does address the effects of powerline placement on several special status birds, including sandhill cranes, (Impacts BIO-58, 64, 68, 70, 73, 77, 82, 84, 88, 92, 97, 101, 106, 110, 114, 118, 122, 126, 131, 135, 139, 143, and 149) and on shorebirds and waterfowl (Impact BIO-182).
2703	1	I am against the construction of the tunnels under the Delta. The construction would disrupt people's lives, destroy habitat and kill fish.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP

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			and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2703	2	Once in action, the tunnels would divert fresh water that is needed to balance the salinity in the Delta and keep salt water from backing upriver beyond Rio Vista.	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.
2703	3	The project, even when completed, would disrupt lies of half-million people who live in or around the Delta, kill endangered salmon and other fish, and disturb birds' navigation along the Pacific Coast flyway, birds that use the Delta for a stop-over.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2703	4	Another irritating thing about this proposed project is that there is a good chance that future politicians will decide to "restore" the Delta and close down the tunnels in a fashion similar to the restoration of the Everglades, and then we will have to pay billions to bring back water flows the way they were in 2014.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2704	1	I think the tunnels are impractical - and support an unsustainable development practice of uncontrolled urbanization, disastrous for N. Calif. environments and ripped-off taxpayers statewide.	The comment raises an import policy issue concerning sustainable growth in California. However, the comment does not question the growth inducement analysis or conclusions of Chapter 30.
2705	1	Thank you for permitting me to voice my comments and concerns regarding the RDEIR/SDEIS. The document has left me with more questions than answers. There are no clear statements about water yields, costs, or assurances that the California Water Fix would work the way it is proposed. As a native Californian, I am left wondering just exactly what is going to happen to our primary water source, our agribusiness, our environment, and our fishing industry. The document delineates a plan that is illegal, unscientific, environmentally unsound, ineffective in purpose, and not well funded. Because of obfuscation and the vast amount of unclear or incomplete data within the document, as a citizen, educator, and reader I am left muddled in mud. I cordially ask that the Tunnels Be Stopped!	The comment states that the RDEIR/SDEIS is unclear and includes incomplete data, but does not offer specifics. 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. Resource areas are addressed separately in the EIR/EIS under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, and others. Where impacts are determined to be significant, environmental commitments and mitigation measures will be implemented to avoid and/or offset these effects, where possible. Refer to Chapter 11 (Aquatic Resources), Chapter 12 (Terrestrial Resources), Chapter 14 (Agriculture), and Chapter 16 (Socioeconomics). In cases, where it is not possible to offset those significant impacts (see Chapter 31, Other CEQA/NEPA Required Sections for a complete list of significant and unavoidable impacts), that information will be provided in the Statement of Overriding Considerations and will be acted on by the decision makers with each lead agency to determine if the project should still be approved or not. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Refer Master Response 5 for information on the costs of the proposed project.
2706	1	We would like to express our concern that in its current form, the Recirculated Draft Environmental Report/Supplemental Draft Environmental Impact Statement for the BDCP/CA WATER FIX is deficient in its assessment of the impacts of decreased	The water quality assessment in Chapter 8, Water Quality, and modeling results 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 to EC would be less than significant with implementation of the proposed mitigation. The other issues raised by the commenter address the merits

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		freshwater flows through the Delta. RDEIR/SDEIS modeling documents find the project will violate Clean Water Act standards for boron, bromide, chloride, electrical conductivity (salt), nitrate, dissolved organic carbon, mercury, and selenium (Appendix B). It is unacceptable that this project should move forward with such results. Good water quality is the lifeblood of Delta fisheries, farms, recreation and municipal uses. Any project that degrades such quality is inconsistent with Federal Law. It is also patently immoral to separate the freshening flows from the Delta to serve as better water sourced for export.	of the project.
2707	1	Reservoirs (natural cycle) instead of just storage (not underground twin tunnels, 35 miles, 40 feet wide, like "chunnel" for autos between Britain and France). Not a drop more would go 400 miles away.	Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the BDCP/California WaterFix or FEIR/EIS.
2707	2	Refurbish Delta dredging from Sacramento City to Antioch Bay Bridge (with USACE 100 year maps as well as private business)	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please refer to Master Response 4 for additional details on the selection of alternatives.
2707	3	Reforestation (after fires and muddy flooding)	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. Please refer to Master Response 4 for additional details on the selection of alternatives.
2707	4	26 points for California desalination (like to Bakersfield Basin), like Navy Ships with deep blue ocean. (90% of all Californians live 30 miles from the ocean.) Water tech business jobs investment, including desalination. (Our drinking water in NorCal has been affected by the drought, so why give mirage of sending water to SoCal desert or semi-arid areas. Also, we have lower crop tonnage, with "hail" damage.	For more information regarding desalination please see Master Response 7.
2707	5	Investments or losses? If LA Metro water can afford to offer purchasing four Delta islands (without beneficial use to area of agricultural preserves, historic tourism, etc.), then how can we foster their funds for cost effective California Desalination jobs, with 2/3 more water!	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/S.
2707	6	Save NorCal fertile soil of Delta counties: California is number one in food crops, currently (for USA and 6th in world). Why put in a destructive twin tunnels to literally make the Delta region into a dust bowl?	The California WaterFix project is being proposed to address the conflict between the ecological needs of a range of at-risk Delta species and natural communities, while providing for more reliable water supplies for people, communities, agriculture, and industry. The proposed project does not propose any changes to existing agricultural practices.
2707	7	Productive property rights, devalued by water taxes or the like? Who plans for eminent domain of 300 farm families, productive for 150 years? Why take Delta river and ground water and devalue property with ground wells for family agribusiness in food crops, with NorCal role in California #1 in food crops? What percentage of stakeholders are growers in agricultural preserves, stewards in reforestation areas, etc.	Socioeconomic effects of the various alternatives are described and assessed in Chapter 16, Socioeconomics, of the 2013 Public Draft BDCP EIR/EIS. A Draft BDCP Statewide Economic Impact Report has also been published, which indicates that the BDCP would result in a substantial economic net benefit to the State of California. Chapter 16 of the EIR/EIS and RDEIR/SDEIS Appendix A (Socioeconomics) identifies the unique features of the Delta and describes the potential effects on Delta communities. Impacts to agriculture are identified and discussed in Chapter 14; project proponents have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18 for more information on agricultural mitigation.

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			No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2707	8	Costs/losses? Where is agribusiness job development other than making a concrete jungle, with costs for government jobs. Our suggestions and queries seem ignored or rewritten for a revised agenda. Californians voted against the peripheral canal ideas in the 1980's. Delta scientists and related resources in local field research disclaim the RDEIR/SDEIS. Is it refixing a bottomless expense, damaging current productivity?	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. The Final EIR/EIS is intended to provide sufficient CEQA and NEPA support for approval of the proposed project or any of the action alternatives for either compliance strategy. As implementation of the proposed project or any of the action alternatives will require permits and approvals from public agencies other than the Lead Agencies, the CEQA and NEPA documents are prepared to support the various public agency permit approvals and other discretionary decisions. These other public agencies are referred to as responsible agencies and 20 trustee agencies under CEQA (State CEQA Guidelines Sections 15381 and 15386) and cooperating agencies under NEPA (e.g., USACE and EPA).For more information please see 1.1.5 of Section 1 Introduction of the RDEIR/SDEIS. The description of the proposed project is provided in Section 4 of the RDEIR/SDEIS and socioeconomic impacts are evaluated in Chapter 16 of the Draft EIR/EIS and Section 4 of the RDEIR/SDEIS. In 2009 the California legislature passed and the Governor signed into law the Delta Reform Act, one of several bills passed related to water supply reliability, ecosystem health, and the Delta. Among many provisions, the Delta Reform Act imposed certain requirements on Department of Water Resources related to the creation of the Bay Delta Conservation Plan (BDCP) in order to be included in the Delta Plan and eligible for state funding for habitat conservation. These requirements include comprehensive review and analysis, and consultation with the Delta Stewardship Council during the planning process and once the project permits have been approved by California Department of Fish and Wildlife. Within the framework of the existing 2009 Delta Reform Act, the BDCP does not require a public vote to move forward. However, in spring of 2014, DWR announced that it would be pursuing a new preferred alternative, Alternative 4A, also known as California WaterFix. Alternative 4A has been developed in response to public and agency input and embodies a different implementation strategy that would not involve a 50-year HCP/NCCP approved under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization for a much shorter period (between 11 and 15 years) under ESA Section 7 and California Endangered Species (CESA) Section 20181(b). Prior to construction, the EIR/EIS must be certified and adopted by the implementing agencies, and permits must be obtained but does not require a public vote to move forward. Refer to Master Response 36 for information on how the proposed project differs from the peripheral canal.
2708	1	As an active voter, farmer, and California resident I urge California to abandon its plans to divert water via the twin tunnels project. The state must reject the tunnels proposal, develop sound water solutions for California, and recognize the rights of rivers and the Delta to flow. Until California realizes that throwing water around instead of addressing the issues at hand is foolhardy, we will wastefully apply water for crops that are not intended to be grown in desert climates. Thank you for considering my comments.	More than two-thirds of the residents of the state and more than two million acres of highly productive farm land receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the project proponents have no authority to designate what water is used for. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.

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			Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2709	1	Please consider the many alternatives to the seriously flawed, and destructive Delta Tunnels/ California Water Fix Plan. I strongly oppose this expensive, environmentally harmful plan. I support the principles of the Delta Reform Act, and this plan does not.	Since 2006, the proposed has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. Please refer to Master Response 4 for additional details on the selection of alternatives and compliance with CEQA and NEPA and the Delta Reform Act.
2710	1	You people aren't really contemplating building two thirty foot, or maybe forty foot in diameter tunnels to suck water out of the imperiled Sacramento River Delta to send to the Central Valley and Southern California at a cost of sixteen billion dollars or more.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2710	2	You're not really going to push the endangered Sacramento River Chinook salmon, once the largest run in the State, over the brink of extinction, causing a loss that cannot be calculated to recreational, commercial, and tribal fisherman, and to the many businesses that live on fishing activity.	Project proponents agree. Please refer to Chapter 11, Alternative 4A of the Final EIR/EIS for an analysis of effects of the preferred alternative, to salmon. The analysis finds that there would be no adverse effects to salmon or the salmon fishery.
2710	3	You're not really going to continue to delude Central Valley farmers and Southern Californians into believing that the party can rock on forever, that they can continue to enjoy all the water they want at prices that don't reflect its true cost, encouraged more and more folks to move here, causing the population to increase so that we'll face the same problem again in a few years. Where would you build tunnels then?	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2710	4	And you wouldn't attempt such a huge project with such far-reaching impact without the knowing approval of either the Legislature or the voters?	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2711	1	So far the California Fix It could cause more drought [and dustiness]!	It is not clear from the comment what the commenter means or how the proposed project could cause more drought (and dustiness) in California. Without additional information, the lead agency cannot provide a response.
2711	2	We need alternatives: A petition to continue dredging to Antioch Bay for Stockton Port (not just Clifton Bay Court pumps, for faucet drips); California's 26 testing points for cost effective desalination in various basins; and other energy resources for business jobs.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 3 for additional details on the project purpose and need and Master Response 4 for additional details on the selection of alternatives.
2711	3	Please clarify muddling of geographical names, like San Joaquin County (fertile), not Central Valley (28 counties mostly semi-arid) and San Joaquin Riverway. All farmer/ growers do not have the same soil.	The lead agencies understand that soil composition varies geographically. Chapter 14, Agricultural Resources, Section 14.1.1.3 provides a description of the agricultural resources study area's climate and soils. The "study area" for agricultural resources is comprised of the Plan Area and Area of Additional Analysis, which encompass over 872,000 acres within Alameda, Contra Costa, Sacramento, San Joaquin, Solano, Sutter, and Yolo Counties. To our knowledge, "San Joaquin Riverway" is not a phrase used within the FEIR/FEIS.

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2711	4	In maps, please include elected counties and towns, not just water districts by governor appointments. USGS [U.S. Geological Survey]/ soil maps show all farmer/growers in Central Valley (about 400 miles from heart of North San Joaquin Delta) face drought	The Existing Conditions/Affected Environment section of Chapter 5 includes a discussion historical drought periods.
2711	5	With California #1 in food crops, why are productive Delta family farms, recreation and historic tourism being threatened with eminent domain devaluing property values?	Please refer to Master Response 3 regarding the purpose and need for the project. As described in Impact ECON-6 under Alternative 4A in Chapter 16, Socioeconomics, construction of conveyance facilities would convert land from existing agricultural uses to project-related construction uses, and agricultural land could also be affected by changes in water quality and other conditions that would affect crop productivity. These direct effects on agricultural land are described under Impacts AG-1 and AG-2 in Chapter 14, Agricultural Resources. Total value of irrigated crop production in the Delta would decline on average by $5.3 million per year during the construction period, with total irrigated crop acreage declining by about 4,700 acres. Other effects related to production costs, travel time, and loss of investments in production facilities and standing orchards and vineyards would also occur as a result of facilities construction. When required, DWR would provide compensation to property owners for economic losses due to implementation of the alternative. When required, DWR would provide compensation to property owners for economic losses due to implementation of the alternative. For more information regarding Delta as a Place please see Master Response 24.
2711	6	Water district petition referred to "occasional reverse flows" near Sacramento City (Corwin, August, 2015), so what is beneficial about salt backup, to productive counties in food crops?	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2711	7	The San Joaquin County Farm Bureau bulletins (Aug/Sept., 2015) noted that three more intakes (cruiser size near Sacramento City) would mean cutting off "fresh water", near heart of Delta. They write that they have attended water board meetings, but farmers / growers of Delta counties are not listened to: Why not?	The description of the proposed project is provided in Section 4 of the 2015 RDEIR/SDEIS. Please refer to Chapter 32 of the Final EIR/EIS and Master Response 40 for information regarding outreach conducted for California WaterFix (and previously the BDCP). More information on how DWR has developed the project in an open and transparent manner is provided in Master Response 41.
2711	8	Renewed Delta dredging was recommended by a basic engineer (A.M.) who helped maintain Delta levees on all the islands. He said that dredging improves the flow, that soil purifies the water (aeration and absorption), that silt can be rearranged (rather than sand bags that add weight).	The commenter does not raise a specific issue related to the adequacy of the EIR/EIS and rather advocates more dredging in the Delta. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2711	9	US House and Senate Funding for Levee maintenance by USACE/Corps (with 100 year maps) was sent to Washington State (sacbee.com 2014). Now, Port of Stockton area has algae growth from warmer waters. How soon will Delta Levee maintenance be renewed -- before El Nino of heavy rains?	The comment discusses levee funding to repair levees before El Nino. It does not raise any environmental issue related to the EIR/EIS.
2711	10	Could the California Fix It (and redubbing of Eco-Restore) -- cause more drought! The natural water cycle affects the cool Delta breeze to neighboring counties. (Ag gives cleaner air than smog from more housing.) More Intake plans (2, 3 and 5) would cause more dusty breeze and salt marshes instead of productive, fertile soil for food crops and recreational rivers in historic tourism development.	Potential increases in fugitive dust emissions as a result of construction are assessed in Impacts AQ-1 through AQ-4 in Chapter 22, Air Quality. As disclosed, construction emissions could exceed local air district thresholds. The project would implement a robust fugitive dust control plan, as described in Appendix 3B, Environmental Commitments, which addresses particulate matter from 1) site grading, 2) unpaved roads, and 3) concrete batching. Additional information on water supply effects can be found in Chapter 5, Water Supply, agriculture effects in Chapter 14, Agriculture Resources, and Recreation in Chapter 15, Recreation.
2711	11	Where are financial reports on Delta region losses on food productivity, tourism, etc.-- by devastating impact of California Fix It at North Delta? What municipal already owns the first Intake near Freeport and Sacramento City? California is known for agriculture with most fertile Delta soil in the world. Housing and Fracking could use Desalination where 90% of Californians live near the Pacific Ocean.	The Freeport Regional Water Authority manages the first intake in Freeport. Please refer to Master Response 7 regarding desalination. Impacts to agricultural and recreational economics are discussed under Alternative 4A in Impacts 5 and 6 in Chapter 16, Socioeconomics.

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2712	1	As a lifelong Bay Area resident and recently retired scientist, I am sending these comments on the BDCP/CA WaterFIX EIR documents. While many aspects may lead to improvements in water management, there are some extremely problematic issues with the Plan and EIR.	The commenter does not raise a specific issue related to the adequacy of the EIR/EIS.
2712	2	I do not support the large reconveyance pumping plans; the risk to the Delta and bay environment and potential resulting negative economic impacts resulting (wildlife and environmental quality which directly supports fisheries, vacation and recreation businesses, home values when communities shrink due to reduced quality of life, etc..).	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. The proposed project was developed to meet the rigorous standards of the Clean Water Act and federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The EIR/S fully disclosed the environmental effects of the project.
2712	3	The costs are far too high to justify this aspect of the proposals and far better alternatives exist. The EIR is totally inadequate in addressing potential long and short term ramifications (environmental, economic, health, etc...) from this massive pumping and redirection.	The proposed project is costly, but proponents have assessed the benefits as described in the 2013 Draft BDCP funding sources. Notably, the water contractors benefitting from the proposed project and their constituents will bear all costs associated with constructing new conveyance facilities and mitigating for the impacts of those facilities. Expenditures of public money from other sources would be limited to restoration activities beyond those needed to mitigate the impacts of facility construction. Please see Master Response 5 for more information on project costs and funding. CEQA and NEPA do not require cost/benefit analysis for the EIR/EIS. The California Water Action Plan recognizes that all Californians have a stake in the future of our state's water resources, and that a series of actions are needed to comprehensively address the water issues before us. The five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species -- all amid the uncertainty of drought and climate change. For more information regarding future developments of the California Action Water Plan please follow http://resources.ca.gov/docs/Final_Water_Action_Plan_Press_Release_1-27-14.pdf. Future committees for the Proposed Project implementation may provide future opportunities for innovative input as well. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. Follow the California Water Plan here: http://www.waterplan.water.ca.gov/. Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1, EIR/EIS, describes the range of conveyance alternatives considered in the development of the EIR/EIS. Appendix 1B, Water Storage, EIR/EIS, describes the potential for additional water storage and Appendix 1C, Demand Management Measures, EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including desalination. While these elements are not proposed as part of the proposed project, the Lead Agencies recognize that they are important tools in managing California's water resources. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management and Master Response 37 regarding water storage. For more information regarding alternatives to the proposed project please see Master Response 4.
2712	4	The amount of monies allocated to improve the Delta environment is far too low, way below what was recommended as "realistic minimums" just a few years ago (in prior proposals considered or pitched). The amount allocated for this purpose must be dramatically increased to adequately	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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		mitigate risks (not covered, asked or considered in the current EIR).	
2712	5	I fully agree with and support the points raised in the public comment submissions you have received from the following groups (and which were posted publicly). The concerns are scientific, fair and appropriate, and highlight or address many omissions, mistaken assumptions, gaps and other problems in the EIR/Plan: Delta Independent Science Board and Environmental Water Caucus	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2712	6	We must become smarter and learn from others who have successfully faced similar long term drought issues and adapted (e.g. Australia). To start (as Australia did) we must legislatively & legally update water control & rights from our archaic & dysfunctional "first come, first served" system to one based on overall & logical scientific assessments, realistic needs and an increased focus on recycling/reuse/reduction schemes, with equal emphasis on environment and people and business. Only then will more beneficial, less costly and shared responsibility water management proposals be possible.	It is important to note, as an initial matter, that the proposed project is not intended to serve as a state-wide solution to all of California's water problems and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Nor is the proposed project intended to solve all environmental challenges facing the Delta. Please see Master Response 6 (Demand Management) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the proposed project.
2713	1	Don't build the tunnels.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2714	1	We absolutely oppose the tunnels planned by governor Jerry Brown to transport San Francisco Bay Delta water to artificially irrigated, dry Central Valley, California. The factory farms can afford to go elsewhere, where water supply is prevalent. Small farmers can switch crops or move as well. Do not destroy one habitat to temporarily maintain another.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2714	2	Anyone who supports this tunnel plan is stupid and/or capitulating to selfish, destructive commercial interests.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2715	1	No on the twin tunnels.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S.
2716	1	I oppose efforts to divert water from the bay and Delta for agribusiness. When will they grow nutrient dense food rather than products that inflate their bottom line. We do know a subsidy for the wealthy when we see it and are not fooled. I was born in the Central Valley and have seen the water wasted for over 60 years. For	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20

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		raisins, almonds, cotton and wine.	years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. See Master Response 34 (Beneficial Use of Water).
2717	1	I very strongly oppose the construction of the Delta tunnels. I believe they are a water grab by powerful West Valley agribusiness interests. It is the largest attempt at a transfer of public resources to private wealth in California history.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. See Master Response 34 (Beneficial Use of Water).
2717	2	It makes absolutely no sense to destroy the greatest estuary on the West Coast, destroy the agricultural, recreational, and tourism interests of the Delta, destroy the salmon and crab industries that need a healthy bay and estuary to thrive, and destroy hundreds of wildlife and plant species just so a group of greedy corporate owners in the west valley - land so salt-poisoned that part of it has had to be retired and that spawned the Kesterson disaster- can receive more water to grow crops that should never have been grown there in the first place. This is crony capitalism at its most destructive.	Several issues raised by the commenter address the merits of the project and do not raise any specific issues related to the environmental analysis provided in the EIR/S. Impacts to agriculture, recreation, and socioeconomics are analyzed in Chapters 14, 15, and 16 of the DEIR/S and in Section 4 of the RDEIR/SDEIS. Please see Master Response 3 regarding the purpose and need of the project.
2717	3	As a California taxpayer, I strongly object to this poorly-conceived project. It represents antiquated thinking. When considering the bond repayment and operations expenses, costs zoom into the $60+ billion range, and when examining the way costs have been underestimated for recent large California public works projects like high speed rail and the Bay Bridge, I anticipate costs would be far above this.	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Please see Master Response 5 for more information on costs and funding.
2717	4	Ratepayers who would suffer hugely increased water bills and property tax hikes prefer to face water challenges in more creative ways such as: -More aggressive water efficiency programs -Funding water recycling and groundwater recharging projects statewide -Retiring thousands of acres of impaired and pollution-generating farmlands in the southern San Joaquin Valley and using these lands for more sustainable and profitable uses, such as solar energy generation. Such retirement of marginal lands would free up water that could be put to better use. -Improving Delta levees in order to address possible earthquake, flooding, and future sea level rise concerns at a cost of between $2 - $4 billion, orders of magnitude less than the cost of the tunnels.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 3 for additional details on the project purpose and need and Master Response 5 regarding cost and funding.

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		-Upgrading leaky municipal water delivery systems statewide	
2717	5	As a fifth generation Californian and a daughter of the Delta, I am sad to say I have become very distrustful of the way you have handled this process. Shame on the State and Federal agencies for applying for tunnels permits before this comment period is over. Shame on BDCP for the manner in which EIR "Hearings" were designed to exclude comments. Shame on BDCP for trying to rush the initial comment period. These actions indicate to me that you are not operating in good faith. Here is the definition of the expression "the fix is in" is: A process that has been rigged behind the scenes and its outcome will not reflect true justice. Sadly, that is how I feel about the California Water Fix and those who are pushing it.	The public comment period for the RDEIR/SDEIS began on July 10, 2015 and continues through October 30, 2015. Public comments submitted during the official public comment period and the previous comment period for the 2013 Public Draft will be made available to the public upon the release of the Final EIR/EIS. The Final EIR/EIS will include all comments received during the official comment period and responses to substantive comments. The obligations of California public agencies under Article 1, section 3(b)(1), of the California Constitution and under the Public Records Act, do not include any obligation to post comments on draft environmental documents on agency websites as such comments come in from the public and interested agencies. Rather, those statutes deal with the obligation for public agencies to hold certain kinds of meetings of public bodies and public officials in public, and to make non-privileged documents of various kinds available to members of the public in response to formal requests. To date, neither the California Legislature nor Congress has required Lead Agencies for CEQA and NEPA documents to post comments on draft environmental documents on their websites during the public review periods for those draft documents. This is consistent with the requirements of the California Environmental Quality Act (CEQA Guidelines §15088) and the National Environmental Policy Act (Council on Environmental Quality § 1503.4) and policies held by all Lead Agencies governing the implementation of CEQA and NEPA. Please see Master Responses 40 for additional detail on the public outreach that has been done for stakeholders and Master Response 42 regarding treatment of public comments.
2717	6	Enough is enough. Stop the tunnels.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2718	1	I am writing this email in opposition to the proposed Delta Tunnel Project. The tunnel project would be the death nail for the ecosystems of the California Delta, as well as seriously impacting the agriculture, economy, and culture of the north state. There is no way that you can build those massive tunnels through the heart of the Delta without having serious and unforeseen impacts on the hydrology, drainage, and ecosystems of the region. Many organizations and agencies have written reports on these consequences, and it's amazing to me that the proposed project has gotten this far, and still being considered.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2718	2	The project creates no new water or storage at all, and the price tag is way too high. The proposed cost is projected to be at least 15 billion dollars, and maybe as much as $60 billion, and would really only benefit a relatively few people, mainly the large industrial scale agribusinesses in the southern Central Valley.	Please refer to Master Response 5 for additional details on the costs of project implementation. The project would cost approximately $15 billion to build (not $60 billion).
2718	3	The people of California would be better served by putting that money towards building desalinization plants on the coast, and building some new large impoundment reservoirs in the south state to catch the rain when it falls. We could do those things, and more, for less money than the tunnels would cost, and without destroying the whole Sacramento River/Delta ecosystem. Please reject the proposed tunnel project.	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.

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2719	1	Water diversions from the Delta are already way too much. The Tunnels are a blatant water grab by rich land owners and is guaranteed to destroy one of the greatest estuaries on the planet. No tunnels and no additional diversions to grow nuts in the desert.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. See Master Response 34 (Beneficial Use of Water).
2720	1	The tunnel project is not worthy of any further consideration or expense. It would be disastrous in so many regards both environmentally and financially. To solve your problems of needing more water, look at the facts and consider that the central valley is a desert and to grow crops that require so much water, and to even remove some crops in order to plant crops and orchards that require even more water is completely irresponsible environmentally and civilly. Truly those working for the water district and the government are smarter and more intelligent than to overlook the most logical solution to the water shortage. Yes, almonds as an example, represent a tremendous cash crop and economical asset to the California Economy and the pockets of select individuals, but at a cost far greater than anyone is acknowledging. It's time to concede that your project is, and always has been completely ill advised. No one wins with this project. Let it go.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Refer to Master Response 3 (Purpose and Need). The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation. Refer also to Master Response 34 (Beneficial Use of Water).
2721	1	Please do not construct the tunnels, because: --farmers/ranchers with acreage, vineyards, orchards for decades will be displaced. --no assurance the tunnels will 'work'-be effective, cost is enormous --no water for farmers in San Joaquin, Stanislaus, & Merced county from tunnels --will displace many endangered species of wildlife & birds	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Resource areas are addressed separately in the EIR/EIS under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, and others. Where impacts are determined to be significant, environmental commitments and mitigation measures will be implemented to avoid and/or offset these effects, where possible (see Appendix 3B). When required, DWR would provide compensation to property owners for economic losses due to implementation of the proposed project. Refer to Master Response 3 (Purpose and Need), Master Response 5 (Cost).
2722	1	I am a California voter and I strongly oppose the Delta Tunnels plan. As an environmentalist and longtime resident of the Bay Area, I know that our fresh Delta waters are critical to our precious local ecosystem and numerous local species and, with the epic drought, already critically limited. I do not support the BDCP. Please do not pass the BDCP.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.

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2723	1	I want to go on record as strongly opposing the California Water Fix. The environmental impact statement is criminally negligent in its incomplete assessment of the plan's impact. In fact, there is no impact statement that could presume to assess the entirety of harm that would be caused by implementation of such a plan. The water that sustains the ecological structure of one of the world's most productive ecosystems should not be diverted to irrigate arid soils to grow water-intensive export crops. Our watersheds depend upon returning salmon to replenish their nutrients. The migration must not be further interrupted. In short, there is no defensible reason to implement this plan, which only serves oligarchical greed. Please support the healthy ecological future of California -- please disapprove this poorly conceived plan.	As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Potential changes to aquatic and terrestrial resources under the action alternatives are presented in Chapters 11 and 12 of the EIR/S. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation.
2724	1	I am concerned that water is being moved from Northern California sources that have little to no water to spare, regardless of the need of farmers and other interests to the south. I am also very concerned that even the pretense of conservation has been recently further reduced, revealing it for the window dressing that it is. I do not believe that any measures that are suggested will make up for the loss of precious fresh water that moves through the Delta, holding back salinity intrusion, and nurturing the fish and wildlife nursery that is the Delta. I am concerned that endangered and precious species such as the Sandhill Crane will be disturbed from their ages old nesting grounds, further threatening this fragile population. I believe that the intrusion of salt water will move up the Sacramento and even American Rivers, irreversibly damaging these estuaries. And finally, as our weather changes and denies even Northern California of snowpack, there will be escalating competition for scarce water. It makes far more sense to use our resources to develop alternative methods to harvest the water we have, including waste water and ocean water, rather than draining the Delta. Building the tunnels will not create a resource that isn't there to begin with, nor will this project encourage the creative development of smarter usage.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Since issuance of the 2013 Draft EIR/EIS, the proposed project has been modified to address concerns of impacts to Sandhill Cranes on Staten Island. Specifically, the project has been modified minimize construction activities on Staten Island by removing: tunnel launch facilities, large reusable tunnel material storage areas, a barge landing site, and high voltage power lines. Furthermore, the avoidance and minimization measures that address Sandhill Cranes have been substantially modified (see RDEIR/SDEIS, Appendix A, Appendix 3B). For more information regarding Sandhill Crane mitigation please see Master Response 17. The ramifications of climate change (including changes to precipitation patterns) have been disclosed in the EIR/S for the No Action scenario as well as the other build alternatives. Refer to Master Response 6 (Demand Management) and Master Response 7 (Desalination).
2725	1	I did not find the issue of changing weather patterns discussed in the environmental review documents. It appears that the project is based on the idea that relatively recent historical weather patterns will hold, in which the northern state is blessed with sufficient snow pack in the winter, providing warm weather water supplies, and the southern state will lack this winter snowpack and resulting water supply. It is just as likely that weather patterns will shift, in which the south state is deluged with rain that is not captured, but is drained off as quickly as possible, while the north state will lack in sufficient snowpack , resulting in a deficient water runoff. In other words, the entire project is based on a historical rain and snow pattern that, even now, is changing. I did not find this issue addressed.	As described in Chapter 5, Water Supply, of the EIR/S, it is anticipated that climate change would result in more frequent and more severe rainfall events and less snowfall than under historic conditions. These rainfall events would result in periods of time when the capacity of the existing intakes would not be adequate. These climate change and associated seal level rise assumptions were incorporated to the analyses of the Proposed Project and all action alternatives. Therefore, the proposed project would provide the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase flows in the wet winter months when the river flows are high to improve conditions for aquatic resources. The water would be stored at locations south of the Delta during the high flow periods to allow reductions in deliveries in drier periods. The north Delta and south Delta intakes would only be used to divert water under existing water rights which were

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			issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements.
2726	1	We are strongly opposed to the Bay Delta Conservation Plan/California WaterFix. This is an outrageous plan that hurts us as almond growers. This plan is disastrous for our fragile Delta ecosystem. The cost is staggering. Why is it the Governor's enormous ego to leave a legacy so foolishly wasteful and ridiculously disastrous [to] our Northern California population? This proposal is just as horrific as the plan of the high speed train.	The BDCP process was initiated by former Governor Arnold Schwarzenegger, who was twice elected by a majority of California voters. The process has continued under the administration of his successor, Edmund G. Brown, Jr., who has publicly stated his tentative support for Alternative 4 as set forth in the EIR/EIS, though he has acknowledged the need to complete environmental review and to obtain additional public input prior to making any final decisions on the project. The BDCP, then, was initiated and carried forward by two Governors acting on a mandate from the voters of the State as a whole. Impacts to agriculture are identified and discussed in Chapter 14; lead agencies have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18 for more information on agricultural mitigation.
2727	1	I don't like this plan. Two huge tunnels? Nope. Ain't gonna cut it for wild and aquatic life. Humans are hogs. There is no hope for other species if we continue to promote ourselves as the be all, end all on this planet. Good luck to all who have worked so hard.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2728	1	The Bay Delta Conservation Plan is a bad idea just on the face of it. Do not spend another $15 billion dollars that this state does not have. It will eventually have to be paid for by taxpayer money. It is just another boondoggle that Jerry Brown is trying to line the pockets of his friends in the labor unions and construction industries (his biggest lobbyists). They are the only ones who will gain from this very sad plan. This plan simply covers the facts with fog. No one gets any more water. There are no new sources of water here. It drains one watershed to fill another with no plan to replace the water taken. As usual, the great new plan will spend money, our money. Oh, I know, that the initial source of money will be bonds - but they are backed by the taxpayers of California! We are the ones who will be paying the interest! We will eventually have to the pay the premiums that come due on the bonds! The loser is the taxpayers of California who get nothing in return except more red ink in our annual budget. It looks so easy. Just sell the people on 3 tunnels. That will solve all the problems. The labor unions, the construction engineers and laborers, the architects, the planners, the administrators, and the secretaries will all get a fat paycheck. But what will we get? Nothing but more dry lands that cannot be farmed--More notices to farmers that their 100 year old water rights have been taken away by bureaucrats that don't care about the ruined farmer whose land has been in the family for three generations. Any project that requires big money is worth looking where the money flows. Follow	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. Refer to Master Response 3 (Purpose and Need), Master Response 26 (Changes in Delta Exports), and Master Response 5 (Cost and Funding).

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		the money and you will see who is getting rich at the expense of the little guy. Stop this insane plan now. The BDCP should never be funded. It is a losing proposition before it gets out of the gate.	
2729	1	Is enriching a handful of people a good reason to destroy the Delta? No. It is certainly possible to engineer such a structure, and to engineer the political situation to allow it to happen. But should we further increase the salinization of the West Side? No. Should we destroy the delicate balance by allowing saltwater to migrate North and East through the Delta? No. How would you even think it is possible to replicate the environment that you would be destroying by flooding a few islands and other minimal 'improvements'? You can not. The levee situation has not been improved in many decades, and yet they have resisted all the earthquakes. The minimal breaks that have occurred would have been prevented with the minimal maintenance that should have been occurring all along. But that hasn't been funded, likely to create the appearance of an emergency situation. Selling almonds to China does not trump the health and vitality of a national treasure - the Delta. Growing other ill-suited crops, such as alfalfa and cotton, is not a reason to destroy the Delta. All the serious scientific reports emphatically state the achievement of "co-equal goals" is ludicrous. Salinization is already occurring and killing huge swaths of land. The problem has been created and still not resolved over many decades. This idea is so ludicrous on so many levels that it is beyond comprehension that anyone would seriously consider moving forward with the project. Please quit supporting the political goals of a governor still hoping to match his father's legacy. Please quit supporting the financial goals of other political leaders just lining their pockets. Southern California would best be served by slowing their growth rate so they can invest in renewable resources, such as desalinization. They will not support the outrageous expenses that will be thrust upon them were this moronic idea to move forward.	The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.

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2730	1	Water conveyance and management can be accomplished much more efficiently by restoring levees. Meanwhile the dry valley is the wrong place to grow thristy crops. Like species, farms should migrate in the coming years to wetter climes. Please forgo the twin tunnels for a more cost effective and future-facing alternative.	The proposed project is just one element of the state's long-range strategy to meet anticipated future water needs of Californians in the face of expanding population and the expected effects of climate change. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.
2731	1	I am writing in regards to the EIR for the California WaterFix project. I believe that the Delta tunnels proposed under this project will have a very damaging impact on the San Francisco Bay Delta. As the largest estuary on the West Coast, the Delta is dependent on the right balance of salt and freshwater. The current problem of saltwater intrusion will only worsen if water is diverted before it even reaches the Delta. The tunnels will degrade water quality for the people and farms of the Delta, as well as endangered species and habitats. Furthermore, the proposed project will also worsen water quality for millions of people in the East Bay and northern San Joaquin Valley who are dependent on the Delta for their drinking water.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The EIR/S modeling results for the No Action Alternative indicate that, with or without the project, rising sea levels will bring saline tidal water further into the Delta than occurs at present.
2731	2	In short, this project will destroy the farms and wildlife of the Delta without providing a drop of new water. When I moved to California in 1982, the voters had just voted down a proposed peripheral canal for good reason. For these same reasons, please stop the proposed California WaterFix with its "peripheral tunnels" and instead consider alternatives to more wisely use this very limited resource so that the Delta is truly protected.	For more information regarding the differences between the proposed project and the peripheral canals please see Master Response 36. Please see Master Response 4 regarding the selection of alternatives analyzed, Master Response 7 regarding desalination, Master Response 6 regarding demand management, and Master Response 37 regarding water storage.
2732	1	I feel that California needs to install a permanent "Anti-Saltwater Intrusion Flexible Flow Management Barrier" across the Carquinez Strait instead of building the tunnels. It would feature closable gates and would allow unfettered navigation and fish migration. Such barriers are seen now in Holland and increasingly throughout Europe. Such a barrier would nullify the threat of saltwater intrusion due to levee failure of any type at any time. It would also be used to throttle and manage the outflow of precious fresh water otherwise lost to the Bay and sea as determined by varying conditions. Properly designed, it would also provide a potent defense against rising sea levels. With this barrier, the current flow through the Delta would continue unchanged, as-is. Only during emergencies would the gates be temporarily closed until conditions stabilized. I believe that this solution would cost far less than the tunnels and would provide far more benefit to the entire state's farmers and municipal users of the Delta's fresh	The alternatives included in the FEIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS. Please see Master Response 4 regarding the range of alternatives selected and the rationale behind those not considered. In response to public input, several new alternatives have been studied in the Recirculated DEIR/EIS and a new Preferred Alternative (4A) identified.

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		water.	
2733	1	I am opposed to the California WaterFix, aka Twin Tunnels, project.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2734	1	Any environmental review is incomplete if it does not address the impacts of irrigating San Joaquin Valley lands that are selenium laden. Until a solution to the selenium accumulation and runoff problem has been solved it is infeasible to continue to irrigate more selenium laden soils. If the tunnel EIS does not address the selenium problem caused by irrigation, it is incomplete. Currently selenium laced water is being drained into the San Joaquin River. We should not turn the entire Delta into another Kesterson toxic swamp. Stop irrigating selenium laced soils.	Please refer to Master Response 14 regarding selenium.
2735	1	I strongly oppose the Delta Tunnel River Plan. This is a destructive bandaid taking water out of areas in greater need and populations, including Mother Nature. There are better ways to spend money and better long term solutions.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2736	1	No tunnels. Forget it.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2737	1	What needs to be fixed is not water but the way we are managing. The California WaterFix is no way to sustainably manage water. We are looking to the state to set conservation and reuse as the standards. If, when we come to the nth degree of conservation and reuse, as well as mandatory water budgets for each individual household, business, institution and agricultural setup. Conservation and reuse will lead us into not only greater water security but a right approach to longterm behavior and thinking. Wholly H2O opposes the California WaterFix.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 3 for additional details on the project purpose and need.
2738	1	Stop the twin Delta tunnels! The California WaterFix is not a fix at all. It diverts water from Northern California to Southern California, thereby transferring the water shortages from Southern California and adding them to Northern California's water shortages. And it is being proposed during a four year (and counting) drought. The amount of money required to finance this debacle could have been diverted over previous years to build more dams and desalination plants (we happen to live right on the largest ocean on Earth, you know?) But Governor Jerry Brown cares not one whit about any of this. He cares only about his legacy, whatever that means. He should be caring about the future water-health of California and not his wealthy donors down south. And a report came out today from the State Water Board stating the all of California's water districts except for four, have complied with the water conservation standards put in place to benefit all Californians. And what a surprise: all four violators of the standards are Southern California districts. Apparently they feel they don't have to comply, and why should they? They know Governor Brown's tunnels will be gushing water to them	The BDCP process was initiated by former Governor Arnold Schwarzenegger, who was twice elected by a majority of California voters. The process has continued under the administration of his successor, Edmund G. Brown, Jr., who has publicly stated his tentative support for Alternative 4 as set forth in the EIR/EIS, though he has acknowledged the need to complete environmental review and to obtain additional public input prior to making any final decisions on the project. The BDCP, then, was initiated and carried forward by two Governors acting on a mandate from the voters of the State as a whole. More than two-thirds of the residents of the state and more than two million acres of highly productive farm land receive water exported from the Delta watershed. The proposed project aims to provide a more reliable water supply, in a way more protective of fish. However, the project proponents have no authority to designate what water is used for. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued

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		eventually, turning the essential Sacramento-San Joaquin River Delta into a giant mud puddle. Shame on the cities of Beverly Hills, Indio, Redlands and the Coachella Valley Water District for not caring about our state's water resources and shame on Governor Jerry Brown for conceiving this crime against one of California's largest natural resources.	by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.
2739	1	I oppose the Twin Tunnel Project! I have a comment that I would to have answered please. My understanding about the State Water Project and the Central Valley Project is that the only water to be pumped out of these projects would be what was left over after the Delta received the amount of fresh water flow it needed to be a healthy system all the way to the San Francisco Bay, how can this be true with the decline of the Delta's health? I would like to know what the flow numbers are considered as for a healthy Delta and what that amount of flow is now. Plus I would like to know what the forecast numbers are with the twin tunnels running at full speed. We need to stop this overallocation of water, please.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The amount of water that DWR and Reclamation can divert from the new north Delta facilities is set by Federal and State regulating agencies, ESA compliance, and project design. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. The total amount of water exported by month in each water year type for each action alternative is presented in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. As shown in Appendix 5A, Section C, the north Delta intake tunnels would not be fully utilized except for a few months in wet years. However, it is important to have the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply of the EIR/EIS. To protect the aquatic resources and senior water rights in the Delta, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. 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.
2740	1	I am 100% in favor of the Bay/Delta Water Fix as revised. The inlet stations at Clarksburg will pull water with a chloride amount of approximately 5mg/L. We have been receiving in Southern California via the California aqueduct water with a chloride amount of 60 to 120. This imports into Ventura County approximately 25,000 tons of salts per year. This is one of the most damaging events that could occur for our water environment. We have saline pollution now in our streams and rivers because of the effluent from the waste water discharges and the domestic use run off from lawns and gardens both with high salt content because of the high salt content that the water has even before it leaves the Delta. The capture of the water at Clarksburg will deliver water to the Southern California area that will allow us to use the waste water discharges with out needing to be processed by reverse osmosis to take the salt contaminants out. These salt	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.

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		contaminants are only being picked up from the current process of allowing the water to be contaminated by about 3 cc of sea water per liter of fresh water and yet this small amount of sea water contaminant is costing millions to be removed before secondary use can occur.	
2741	1	I was born 71 years ago in San Mateo County and still live here to this day. The changes I have seen to Northern California and particularly to the coast side have not been pretty. The economies of towns from Crescent City to Monterey have seen their fishing industries devastated. Today I read the National Marine Fisheries Service is worried Chinook salmon may become extinct due to low water flows out of Lake Shasta resulting in warm water killing the juvenile salmon. This summer the Delta suffered choking weed growth due to a lack of water flushing out the system. The lack of healthy water flow will also result in salt water intrusion that will have negative affect on local farms and city water supplies. Fort Bragg is currently asking its restaurants to use paper plates and cups to avoid having to wash dishes because of salt water intrusion on the Noyo River has polluted the water supply. This is drought related but is an example of things to come if more water is diverted from the Delta. At the same time driving down 101 last weekend to San Luis Obispo I observed miles of wine grapes. Going up 505 and 5 to Redding all I see is almonds, many of them just planted when here we are in the middle of a drought. The same holds true for 101 north through Sonoma and Mendocino Counties - grapes, grapes and more grapes. The October, 2015 San Mateo Times wrote a front page article on the huge growth planned for the Coachella Valley, Santa Clarita Valley and a whole new city in the southern San Joaquin Valley. Is all this sustainable? I do not think so. The Califonia Water Project of the 50s was supposed to satisfy our needs and had protections to insure the Delta would receive adequate water to protect the environment. All that project did was increase demand that could only be met by ignoring the original protections. The California Water Fix will have the same results. Already the conservation portion that was sold to the public has been discarded. On September 22, 2015 in another San Mateo Times article it was disclosed the Metropolitan Water District of Southern California Real Asset and Property Management Committee was meeting behind closed doors to discuss purchasing 37 parcels of Contra Costa land. Why? Is this nothing more than the Owens Valley revisited, a scam on the people of California that will further damage Northern California, its natural resources and its people? I think so. Please scrap this twin tunnels concept and let the state learn to live within its means as pertains to water without stealing it from one group of people to benefit another group of people.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. 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, Water Demand Management).
2742	1	I am opposed to the California Water Fix Plan. I do not think tunnels to take water from an area dependent on that water for wildlife, agriculture and recreation makes sense. Our beautiful state was designed to balance diverse needs. We are rich in resources. I do not think we should tip that balance just because we can. Yes, we have water needs, but in a large part that is our fault. We have runaway population in areas where the environment does not support population growth. We grow crops which demand more water than available in areas where they are planted.	As stated in the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights or any changes in total water rights issued to DWR and Reclamation.

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			The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management). These actions are being considered to meet future water demands for planned municipal uses consistent with water demand projections in the recent Urban Water Management Plans submitted to DWR which include approaches to meet the 20 percent reduction per capita urban water use by 2020. 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.
2742	2	We need to look for solutions beyond robbing one area of its natural resources to support an area that is depleting its own resources or cannot sustain its own growth or population with the resources it has available. That just makes no sense. We need to be stewards of the environment if we expect reasonable, sustained life and livelihoods. I support conservation, desalinization, water storage facilities but also a more reasonable and reasoned policy of growth so we don't have to make demands on the environment that are unreasonable. Taking water from a rich biodiverse region which contributes to supporting the existing population of the area and contributes economically to the State to support unchecked population in an area that cannot support itself is wrong. I fervently hope these tunnels are not built and that we work together to seek alternatives.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 4 for additional details on the determination of beneficial use and Master Response 3 for additional details on the project purpose and need.
2743	1	The cost benefits analysis is out of whack! This project does not produce one single drop of additional water to the State of California and only serves to help farmers and consumers in the south at the cost of destroying towns, habitat and disrupting lives in Northern California for 100's of square miles. New storage facilities and desalinization plants make a heck of a lot more sense than this political boondoggle.	The commenter offers an opinion on the merits of a particular water supply augmentation approach (desalination, more storage) and does not raise a specific issue related to the adequacy of the EIR/EIS. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. Please see Master Response 7 regarding desalination. An updated cost-benefit analysis will be prepared outside the CEQA/NEPA process.
2743	2	Let's follow the money and see who is being paid off and what politician's promises are being kept. Why would any Northern Californian expect to pay for this in new taxes when there is absolutly zero benefit for us?	All of the documents, studies, administrative drafts, and meeting materials have been posted online since 2010 in an unprecedented commitment to public access and government transparency. Please see Master Response 41 [Transparency], Master Response 5 (Funding), Master Response 34 (Beneficial Uses), and Master Response 3 (Purpose and Need).
2743	3	Where are the extensive environmental studies that would be required if I were to try and move forward with such a project that will undoubtedly disrupt and harm the Delta and its environs and habitat?	Since 2006, the proposed has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to

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			improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2743	4	Where is the common sense that tells us if make farmers pay for this monstrosity of a project, they will not be able to afford to grow low grossing crops like Roma tomatoes, corn, beans, etc. and only focus on exported crops like almonds, walnuts, etc. that are higher grossing and readily exported to Asian markets at high prices? What does that do to California consumers and US customers for those fresh food products?	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2743	5	What is the mitigation plan to restore the Delta to its pristine condition after the State rips it all up building football field sized muck piles within one mile of a 12,000 population center? Who is going to dispose of it and what about the smell, leaching of dangerous chemicals and metals into the groundwater aquifer?	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. Please refer to Master Response 12 (Reusable Tunnel Material) and RDEIS/SDEIS Appendix 3B, Environmental Commitments, Section 3B.2.18 Disposal and Reuse of Spoils, RTM and Dredge Material. For more information regarding impacts to groundwater resources please see Chapter 7 of the FEIR/EIS.
2743	6	There will be absolute devastation to the waterfowl and fish populations as this project goes forward that will take years to restore, if ever. What is the cost and who pays for that loss? Why is there no remediation plan in this latest iteration of Jerry Brown's water follies? Is this a Tunnel Plan or a EcoRestore Plan? Or is it a plan at all and just a money/water grab by southern farmers and water companies? Can they afford to pay for it or will the State be stuck with the billions this ill-conceived plan will cost? How many billions will this project be underfunded? Do we really have a handle on what the final cost might be? Will the state lose control of its primary water source by selling off future rights to pay for it? We've seen how these projects usually end up - just look at the train to no where project. Fresno to Merced? Ha! Useless.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The preferred alternative (Alternative 4A) includes AMMs for reducing impacts and mitigation measures compensating for significant impacts on wetlands and habitats, but wetland restoration would take place under a separate program. Chapter 11 of the Draft EIR/EIS addresses measures to protect aquatic ecosystem, and Chapter 12 of the Draft EIR/EIS addresses measures to protect terrestrial ecosystems. Although Alternatives 4A, 2D, and 5A include only those habitat restoration measures needed to provide mitigation for specific regulatory compliance purposes, habitat restoration is still recognized as a critical component of the state's long-term plans for the Delta. Such larger endeavors, however, will likely be implemented over time under actions separate and apart from these alternatives. The primary parallel habitat restoration program is called California EcoRestore (EcoRestore), which will be overseen by the California Resources Agency and implemented under the California Water Action Plan. Under EcoRestore, the state will pursue restoration of more than 30,000 acres of fish and wildlife habitat by 2020. These habitat restoration actions will be implemented faster and more reliably by separating them from the water conveyance facility implementation. Refer to Master Response 3 (Purpose and Need), Master Response 26 (Changes in Delta Exports), and Master Response 5 (Cost and Funding, respectively).
2743	7	How badly will I-5 be impacted and what about the farmers and towns in the path of these monstrous water sucking tunnels?	The proposed project is a linear project that would somewhat parallel I-5, but would always be close to a mile or more away from the freeway. This distance is more than the noise and visual buffer of 1,400 feet. Please refer to Chapter 19, Transportation, for a description of potential impacts to roads in the project area.
2744	1	I am opposed to the "California WaterFix" aka Twin Tunnels project. Please do not proceed with this project.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2745	1	This project is a disgrace to the democratic process, is a complete Governor's boondoggle (how much did the proponents line Governor Brown's pockets?), is an environmental disaster in a state that claims to take leadership in environmental	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the

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		protection, and truly shows the extent of corruption in the SWRCB, DWR and the Bureau of Reclamation.	index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2745	1	This project is a disgrace to the democratic process, is a complete Governor's boondoggle (how much did the proponents line Governor Brown's pockets?), is an environmental disaster in a state that claims to take leadership in environmental protection, and truly shows the extent of corruption in the SWRCB, DWR and the Bureau of Reclamation.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2746	1	The basic premise of this project is obviously flawed. It will do permanent damage to the Delta, seriously affecting Delta agriculture, recreation and the general quality of life for millions of Californians. And all to feed Governor Brown's ego.	Since 2006, the proposed has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2747	1	Do not build the tunnels. They will let in salt water and degrade the ecosystem for generations to come.	Chapter 8, Water Quality, of the EIR/EIS discloses the potential water quality impacts resulting from constructing and operating the proposed project. See also Master Response 14 (Water Quality).
2748	1	The plan for building two tunnels of massive size underneath the Delta to deliver Sacramento River water to Southern California cities and agribusinesses will produce massive air pollution for the duration of its construction, 10+ years. The mitigation for this is to buy carbon credits from areas far away. The problem, of course, for residents and visitors to the Delta, including workers actually constructing this plan, is that the pollution remains intact right where it is being produced. There is absolutely no solution to the problem of this pollution, which will likely affect the health of every person in its reach, residents, visitors, and construction workers alike.	The lead agencies have developed a comprehensive and aggressive mitigation strategy to reduce onsite toxic air contaminates and criteria pollutants. Specifically, an average performance standard of model year 2013 engines is identified for offroad equipment. This performance standard must be achieved at each construction site, although construction contractors may utilize a variety of control strategies to meet an emissions output equivalent to or better than a model year 2013 fleet. Emissions in excess of air district and/or federal de minimis thresholds will be reduced through the procurement of offsets. These offsets would be purchased through local air district offset programs or through a DWR-sponsored program (i.e., they are not "carbon offsets"). All offsets must come from projects located within the same air basin as the generated emissions. Reductions must also be achieved (contracted and delivered) by the applicable year in question (i.e., emissions generated in year 2016 would need to be reduced offsite in 2016). Please also see response to comment 219-1.
2749	1	Having made my thoughts on the Waterfix Project known earlier, I have only one	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

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		comment to add at this time, a quote by H. L. Mencken: "For every complex problem there is an answer that is clear, simple, and wrong." Thank you for the opportunity to respond to the revised EIR/EIS.	
2750	1	The preferred alternative continues to export water from the south Delta under most water year types. The preferred alternative does not change the status quo of pulling Endangered Species Act listed fish species into the central and south Delta where survival has been documented to be extremely low. Survival data of Endangered Species Act listed fish species in the north Delta is sparse and statistical power is very low. The baseline data utilized for choosing an alternative is lacking and more baseline survival data is needed to have a higher certainty of the current condition before choosing an alternative.	The commenter is correct that the preferred alternative continues to export water from the south Delta export facilities, although to a considerably less extent than currently occurs, with expected benefits to interior Delta flows (e.g., Old and Middle Rivers). Environmental Commitment 16, Nonphysical Fish Barrier, would mitigate the effects on salmonid survival associated with operation of the north Delta intakes and associated flow changes. The proposed Head of Old River operable gate would reduce entry into the interior Delta of listed juvenile steelhead from the San Joaquin River basin. The survival data used to inform the assessment of north Delta survival (e.g., Delta Passage Model for Chinook salmon) for the different alternatives were the best available; monitoring of salmonid survivorship in the north Delta intake reach would be undertaken to assess the impact on survival of juvenile salmonids from the new north Delta intakes.
2750	2	Water quality modeling was not performed to determine the likely change in salinity, dissolved oxygen, and temperature in Elk Slough. How will water quality changes be mitigated for in Elk Slough?	The assessment of dissolved oxygen effects in the Delta due to the project alternatives was conducted qualitatively, thus, no modeling was conducted. A dissolved oxygen model that addresses spatial and time scales of the assessment (16 year period DSM2 simulation) and would inform the dissolved oxygen discussions is not currently developed. Impacts to dissolved oxygen (Impacts WQ-9 and WQ-10) were determined to be less than significant under all alternatives, therefore, no mitigation is required. Regarding electrical conductivity (EC), the assessment focused on changes in EC at Bay-Delta Water Quality Control Plan (WQCP) compliance locations, which were established by the State Water Resources Control Board for the protection of agricultural beneficial uses. Because Elk Slough is not a WQCP compliance location, EC results have not been presented or evaluated in the EIR/S. Effects to agricultural beneficial uses were determined through evaluating changes in EC levels and compliance with objectives at WQCP locations. Mitigation measure WQ-11 is provided to address significant impacts under the alternatives. Regarding temperature, water operations would have very little effect on temperatures in the Delta, which are primarily affected by ambient air temperature, as further discussed in the Dissolved Oxygen section within Section 8.3.1.7, Constituent-Specific Considerations Used in the Assessment, in Chapter 8, Water Quality.
2750	3	Water elevation (stage height) was not modeled for Elk Slough. How will changes in water elevation be mitigated for in Elk Slough?	Water elevations in Elk Slough would be affected under the proposed project and other action alternatives as compared to the Existing Conditions and the No Action Alternative in a similar manner as shown in Appendix 5A, Section C, in the Final EIR/EIS for the Sacramento River at Freeport and along Steamboat Slough downstream of Sutter Slough. Effects associated with changes in water surface elevations and flows related to availability of water for agricultural and community uses are addressed in Chapter 14, Agricultural Resources, and Chapter 20, Public Services and Utilities, respectively. Mitigation Measure AG-1a: Promote Agricultural Productivity of Important Farmland, would reduce adverse effects and/or significant impacts related to conversion of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones to non-agricultural uses. This mitigation would include mitigation on site, which covers temporarily impacted and permanently impacted diversions.
2750	4	Ground water levels were not modeled for the surrounding area under all alternatives. How will changes in ground water levels be mitigated?	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 during construction including at intake locations, tunnel shafts, and forebays. The effects on groundwater at locations with slurry wall installations would be substantially less than the CVHM model results indicated for groundwater conditions without the slurry walls, and would not result in significant effects as compared to Existing Conditions. During the design

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			phase, DWR would conduct site-specific analysis to determine the extent of the potential conflicts related to conveyance facility construction, including locations of water supply and drainage facilities. DWR would consult with local reclamation districts and land owners to ensure that construction activities would not conflict with existing wells and other facilities. It is possible, that some impacts may result in effects depending upon specific information that would be collected during design and construction phase. 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 and land uses; monitoring changes in groundwater levels during construction; monitoring seepage effects; relocating or replacing infrastructure in support of continued agricultural and other land use activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional approaches. Please see Chapters 14 and 20 in the EIR/EIS.
2750	5	Construction of the proposed facilities will impact the Delta economy and Delta land values. How will changes in the local economy and land values be mitigated?	Please see Chapter 16, Socioeconomics, for information on the magnitude of the most pertinent and quantifiable socioeconomic impacts, both adverse and beneficial, that are expected to result from all alternatives. Regional employment and income would benefit from each action alternative. However, each alternative, with the exception of the No Action Alternative, would also result in permanent losses in agricultural employment as a result of the conversion of agricultural lands necessary to construct water conveyance facilities. Mitigation Measure AG-1, described in Chapter 14, Agricultural Resources, Section 14.3.3.2, Impact AG-1, would be available to reduce these effects by preserving agricultural productivity and compensating off-site.
2750	6	Scientific data shows that water export facilities increases predation at the locations of water export. New export facilities will likely increase predation of Endangered Species Act listed fish species. How will increased predation be mitigated?	EC15 (or CM15 under the BDCP alternatives), as described in Chapter 3 and Appendix 3B, would entail localized reduction of predatory fishes. EC15 would reduce populations of predatory fishes at specific locations and eliminate or modify holding habitat for predators at selected locations of high predation risk (i.e., predation hotspots). This conservation measure seeks to benefit covered salmonids by reducing mortality rates of juvenile migratory life stages that are particularly vulnerable to predatory fishes.
2750	7	The preferred alternative does nothing to increase the survival of Endangered Species Act listed fish in Clifton Court Forebay. Survival of Endangered Species Act listed fish in Clifton Court Forebay is extremely low. How will loss of Endangered Species Act listed fish in Clifton Court Forebay be mitigated?	Fewer fish entrained into CCF as a result of the preferred alternative, 4A, will result in fewer fish subjected to the adverse conditions of the CCF and the associated salvage operations. In addition, as discussed in the RDEIR/SEIS, Environmental Commitment 15, Localized Reduction of Predatory Fishes (Predator Control), would be undertaken in Clifton Court Forebay to mitigate entrainment effects. In addition, DWR and Reclamation are required to improve fish collection efficiency at the existing south Delta salvage facilities, as part of facility improvements required by the National Marine Fisheries Service 2009 biological opinion on the SWP/CVP. For example, in 2014 Reclamation replaced the secondary 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. Screening the intakes at Clifton Court Forebay was analyzed during the water conveyance alternative development process and is described in the 2013 Public Draft EIR/EIS, Appendix 3A. This alternative was eliminated from further evaluation because initial results of recent studies, including information included in the recent NMFS biological opinions, supported a phased approach that would emphasize improvements to operations of fish handling facilities and reduced predator potential within Clifton Court Forebay prior to further analysis of installation of fish screens. Nevertheless, DWR and Reclamation will continue investigating strategies to increase fish salvage efficiency, reduce pre-screen losses, and improve screening efficiencies, consistent with the 2009 biological opinion of the SWP/CVP.
2750	8	Elk Slough is tidally filled. Hydrodynamics within Elk Slough have not been sufficiently	The DSM2 model used in the EIR/EIS to simulate conditions under the Existing Conditions, No Action Alternative, proposed project, and other action alternatives includes Elk Slough. The results for Elk Slough

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		modeled to determine if mitigation is necessary.	are not specifically reported in the EIR/EIS and would be similar to conditions shown in Appendix 5A, Section C, in the EIR/EIS for the Sacramento River at Freeport and along Steamboat Slough downstream of Sutter Slough.
2750	9	The Delta is a historical and cultural resource. How will the proposed alternative mitigate for changes to the historical and cultural value of the Delta?	Cultural landscapes are discussed throughout Chapter 18, including Rural Historic Landscapes in the Delta (Section 18.1.7.8). Direct effects of these cultural landscapes are discussed in Section 18.3.2 and Mitigation Measure CUL-6 includes following the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68) and the National Park Service's Guidelines for the Treatment of Cultural Landscapes. Lastly, Mitigation Measure CUL-5 specifies consultation and implementation of a Built Environment Treatment Plan (BETP). This BETP will specify property-specific protect, avoidance, and treatment as necessary.
2750	10	The Delta is a recreation resource. How will changes in recreation quality be mitigated?	Mitigation Measure REC-2 would provide alternative bank fishing access sites, as described in Section 15.3.3.2. Please also refer to Appendix 3B, Environmental Commitments, for a description of AMMs and CMs related to recreation.
2750	11	Underground tunnels do not solve the problem with stability of the water projects during an earthquake. How will the tunnels survive an earthquake?	Please refer to the response to comment 1986-4.
2751	1	The Delta tunnels should not be built. They pose a real threat to the fish and wildlife of the Delta and the Bay. I live in Benicia and we have already seen a change in the water in the straits by our town. It is increasingly salty. The tunnels will allow for even more saltwater intrusion. If half of the water is diverted the Delta and Bay will suffer, particularly during a drought. When water is short the farmers are put first and the environment and fish suffer. With the tunnels you are putting Central Valley farmers ahead of Delta farmers. There are better, cheaper, and safer ways to increase our water supplies. Drop this project.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2752	1	I want to object to this undemocratic process which is desperately trying to avoid a statewide vote on the Governor's giant tunnels plan! I furthermore object to the name "WaterFix" since the proposal creates more problems than it solves. Stop your political spin and try basing your documents and decision on law and biology--rather than on political pressure!	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2752	2	I am confused in regards to this California Department of Fish and Wildlife (CDFW) webpage which says, "If the Department determines that the federal statement/permit is not consistent with CESA, the applicant must apply for a incidental take permit under section 2081 subdivision (b) of the Fish and Game Code." What I cannot determine is whether the BDCP plan was determined to be inconsistent with CESA--and thus whether CDFW advised them (or they made their own decision) to seek end-run permits by going through section 2081(b). Has it been determined that the BDCP was inconsistent with CESA (and thus that may have been why the 2081(b) approach to regulatory permits is being attempted)?	Please note that the BDCP is no longer the preferred alternative. The preferred alternative is now Alternative 4A and no longer includes an HCP. Alternative 4A has been developed in response to public and agency input. The EIR/EIS analyzes all alternatives, including Alternative 4A. Please see Master Responses 4 and 5 for additional detail on the BDCP and the alternatives involving an HCP component. The original proposal for the BDCP was an HCP (to support the ESA) and NCCP (to support the CESA/ 2081(b) process). There are differences between the ESA and CESA. To the extent practicable, CDFW can issue take authorization under 2081(b) if all of the criteria established as part of the ESA process meets CDFW requirements. If CDFW requirements are not met, then the applicant must submit additional information to allow CDFW to meet the 2081(b) criteria. At this time, the decision has not been made whether an incidental take permit under 2081(b) will be required until the completion of the CEQA/NEPA process. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

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2752	3	It was rather bizarre that California Department of Fish and Wildlife advises taking the 2081 (b) permitting route because basic common sense would lead to a conclusion that the Tunnels scheme clearly will not abide by the criteria indicated in Title 14 of the California Code of Regulations, Section 783.4 subdivisions (a) and (b). When one looks at points 1 through 5 (with # 3 having sub-points "a.", "b.", and "c."), one notices that of the 7 numbered or lettered points, it is clear that the Tunnels scheme does not meet 5 of those 7 criteria (I am counting 1, 2, 4, and 5 as one apiece, and then count #3 as 3 since it has three sub-points). For instance, due to the massive construction footprint and the massive diversion of freshwater upon completion (which will never even make it to the Delta), "the impacts of the authorized take" cannot be either minimized or fully mitigated. Also, there is no way that the alleged restoration can be "roughly proportional" to the massive construction disruption and the massive diversion of Sacramento River water. The odds of "successful implementation" of restoration to maintain listed species is basically zero. There is no way such a huge project at a hundred fifty foot depth can have enough restoration to keep the listed species going. Thus, no amount of funding is sufficient since such restoration cannot be successful. And then the catcher, "Issuance of the permit will not jeopardize the continued existence of a California Endangered Species Act-listed species." Clearly, if the permits are given for the Tunnels boondoggle, it will be a decision based on political pressure, since one cannot embark on such a massive project (when combined with already declining native fish populations) and claim a good chance of success in such regard.	DFW will need to decide, based on the evidence on the record including the 2081 permit application and this EIR/EIS, if the preferred alternative, 4A, meets the requirements of the CCR pertaining to incidental take permit issuance.
2752	4	Note that (except for on the mailing address portion of this page), I am using the term BDcp, rather than BDCP. This is because the "CP" part of BDCP is an afterthought desperately trying to justify a giant water conveyance system. I was appalled to discover that the Tunnels are planned at a depth of 150 feet. Thus there will be massive impacts on a huge number of species during the nearly three decades that it will take to build this boondoggle--besides major impacts on anadromous fish and other species from the "operation" of the BDcp Tunnels. The recent effort to separate the Tunnels boondoggle from the so-called "restoration" as part of the BDcp is quite disturbing since it is pretty much presumed that the two will work hand-in-hand in order to try to maintain and restore habitat for a number of listed species of the Bay / Delta. Also, the recent butchering / significant reduction of the acreage planned for restoration is another indication that the project is the Tunnels boondoggle--rather than really focused on restoration. I understand that most of the area to be restored is land rather than aquatic environment. There needs to be great specificity as to how various efforts on land and in riparian and aquatic habitat will help to maintain populations of listed species. Also, you must identify which areas are to be restored --including identifying the owners of such land. Will a landowner have any options regarding such, or will some parcels be mandated to do some restoration? How many properties will be seized for the Tunnels boondoggle? Will some of these properties be seized for so-called restoration?	The EIR/EIS fully discloses environmental impacts from constructing and operating the conveyance facilities proposed for the action alternatives. Because the location and details of the Environmental Commitments are not yet known and because of the distinction for the proposed Environmental Commitments as defacto mitigation measures, the level of analyses included in the EIR/EIS is commensurate with the analyses that are required under CEQA for the effects of mitigation measures, which in most cases, under common practice, is conducted at less level of detail than features or facility described for a proposed project. As for many mitigation measures that involve physical changes to the environment, they're implementation may require more site specific environmental review to address specific effects of these actions. The EIR/EIS provides sufficient information regarding the potential environmental effects of proposed Environmental Commitments to reach significance conclusions as required under CEQA. DWR has also prepared a Biological Assessment detailing the potential effects and habitat restoration needed to avoid adverse effects on listed species. Selection of restoration sites will be based on a future planning process during which land acquisition and site selection will be addressed in greater detail. This comment also expresses concern about loss of property associated with the California WaterFix conveyance facilities. DWR does not take the issue of Delta property acquisition lightly. The EIR/EIS discloses that approximately 76 structures could be affected by facility construction. Property owners affected by needed land acquisition would receive just compensation for the property acquired.
2752	5	I notice on the California Department of Fish and Wildlife webpage that, "No Section 2081 (b) permit may authorize the take of 'fully protected' species and 'specified birds' (Fish and Game Code Sections 3505, 3511, 4700, 5050, 5515, and 5517)." I notice that some of those species listed on the "fully protected" species list use the Bay/Delta for key habitat needs--such as the Pelican, the Sandhill Crane, and others. It is my understanding that no take of such species may occur. Please carefully examine	The commenter points out that several species identified as fully protected under Fish and Game Code are found in the Delta, and asks that the documents address these species habitat needs, distribution relative to the conveyance facility, the potential for take of the species, and measures to avoid take of these species. In Section 12.1.3.2, Special-Status Wildlife Species of Chapter 12 of the EIR/EIS, those wildlife species that occur within the Delta that are fully protected are identified and their habitat needs and distribution in the Delta are described. The impacts on these species are addressed for the various alternatives throughout

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		which species are in which areas near the proposed giant Tunnels route, and estimate the likelihood of not only the killing, but the harassment or injury of such species during the likely over 25 years that it will take to build the Tunnels boondoggle. If such species are found in the fairly immediate area, what actions will be taken to seek to avoid "take" of such species? In the final upcoming document on BDCP, please list all "fully protected" species which are found in the Sacramento River and Delta region, and then mention their habitat needs, and which portions of the tunnels route are their preferred areas.	the rest of the Chapter, which includes a discussion of how take will be avoided.
2752	6	It is my understanding that the Kern County Water Agency [KCWA] claims the tunnels to not be economically viable unless there are illegal provisions such as taking Prop. 1 money to buy water (to be mostly destined for giant agribusiness as well as fracking operations in Kern County) as well as give that agency as much water as they seek especially during springtime. So it sounds like your choice is to either pander to chemical agribusiness and give the billionaires what they want, or follow the law and reject this huge scheme which has no real chance of restoration success. Do you agree with the KCWA that the Tunnels are not economically feasible without all the basically corporate welfare which KCWA calls for in their comments? Does Proposition 1 allow for the taxpayers to buy water? That question must be answered whether or not the water is destined to KCWA and/or otherwise.	The economic costs and benefits of the proposed project (Alternative 4A), including costs and benefits to a particular water agency (Kern County Water Agency), are not the subject of the RDEIR/SDEIS. The proposed project is costly, but proponents have assessed the benefits as described in the funding sources. Notably, the water contractors benefitting from the proposed project and their constituents will bear all costs associated with constructing new conveyance facilities and mitigating for the impacts of those facilities. Please see Master Response 5 for more information on project costs and funding.
2752	7	I call for inclusion in the next formal documents on this matter of a clear delineation of what persons / companies / interests have contacted (and / or wined and dined) various California Department of Fish and Wildlife, California Department of Water Resources, Reclamation, and USFWS personnel (including big-wigs) so that we can see clearly whether there is improper collusion, or whether there is any integrity left in agencies which tend to be taken over by those who they are supposed to be regulating.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2752	8	I will discuss air emissions pertaining to the many decades-long "construction phase" of the proposed Tunnels boondoggle under 4A and some other alternatives. There are more than 40 known carcinogens in diesel smoke--and I would guess that most heavy equipment for decades of construction of the Tunnels would be spewing diesel fumes. How do such proposed emissions mesh with air quality regulations for the Central Valley? Besides the various carcinogens in diesel, people deserve to see a specific plan to control black carbon emissions in the construction phase for the tunnels.	Construction-related criteria pollutant and greenhouse gas (GHG) emissions have been quantified and disclosed in Chapter 22, Air Quality and Greenhouse Gas Emissions. Potential health risks from exposure to diesel particulate matter (DPM) generated by diesel-fuel engines are analyzes in Impacts AQ-14 through AQ-17. As noted in the EIR/EIS, construction of Alternative 4A would not result in excess cancer risk at adjacent receptor locations in excess of air district adopted thresholds. With respect to air quality regulations, the proposed project would comply with all applicable air district rules and regulations. The lead agencies have developed a comprehensive and aggressive mitigation strategy to address air quality and associated human health effects associated with construction emissions (see Appendix 3B, Environmental Commitments). The measures outlined in Appendix 3B reflect the latest emissions control strategies based on currently available technologies and will substantially reduce onsite emissions generated during construction. Emissions in excess of local air district thresholds or federal de minimis thresholds will be further mitigated through implementation of Mitigation Measures AQ-1, AQ-3, and AQ-4. The lead agencies have also developed a GHG Mitigation Program to reduce construction-related GHG emissions to net zero. The measure would require that project proponents develop the GHG Mitigation Program before commencement of any construction or other physical activities that would generate GHG

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			emissions. The program would consist of feasible options that, taken together, are expected to reduce construction-related GHG emissions to net zero.
2752	9	The cumulative impact of the decades-long construction phase of this massive project built at a depth of 150 feet, combined with the diversion of massive amounts of water which will not be available to ever enter the Delta, will clearly be a fatal blow to all listed fish species in the Sacramento River and Delta region--those being the Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley Steelhead trout, southern Green Sturgeon, and the almost gone Delta Smelt. Each of this species needs more water in the river and delta system (at least during some of their life phases) to have a chance of surviving. The restoration plan was recently slashed considerably in acreage, and clearly cannot be successful in mitigating either the hugely destructive construction phase or the major ecological impacts from massive water diversions during the operational phase. Even if one had many tens of billions of dollars and could seize a lot of property and change lots of practices in the region, it still likely could not sufficiently mitigate for the drop in species populations due to the lengthy construction phase of the Tunnels scheme--let alone mitigate for that major phase along with mitigating for the massive diversion of freshwater which never makes it to the Delta in which there are struggling listed species. (And do not forget the climate change--drought as the new normal--backdrop to which the huge Tunnels are planned. Yes, you must account for climate change in discussions of species survival, potential flow rates or guarantees of sufficient water to certain powerful water brokers, cumulative impacts, etc.)	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The in-water construction activities are expected to take approximately 3 years and are avoided, minimized and mitigated through a combination of standard construction practices, employing construction techniques and equipment that minimize disturbance, limiting work to work-windows when fish are not typically present, and habitat restoration. The effects on terrestrial species will be offset through habitat protection and restoration in the Delta as well as the implementation of avoidance and minimization measures (AMMs) to be implemented during the construction of the water conveyance facilities, operations and maintenance, and during restoration projects. The AMMs include timing restrictions to avoid sensitive time periods (e.g., nesting season), preconstruction surveys, and avoidance buffers. The cumulative effects of construction and operation, including climate change and other factors and projects that could affect the species evaluated in the EIR are described in Chapters 11 (fish and aquatic resources) and 12 (terrestrial biological resources). Climate change is specifically addressed in Chapter 29 of the EIR/EIS. For more information regarding purpose and need please see Master Response 3.
2752	10	I see no chance for success in the alleged restoration, but let's give them the benefit of the (not much) doubt and let's say they embark on very robust and conscious restoration in various parts of the Delta. So even if the restoration is a lot better than I expected, it will be a decades-long process. The listed species will not be able to maintain enough numbers and may well die out before the construction phase is over. The Delta smelt could disappear entirely this decade, and the other listed fish species aren't faring much better, and will be severely harassed / stressed by the lengthy construction phase digging to such a depth. And if a listed fish species happens to survive despite the Tunnels construction phase being very disruptive to their designated critical habitat, then they could well be finished off by the massive diversion of water which deprives their bathtub (so to speak) of a major amount of freshwater.	This comment is on the merits of the project and express and opinion about the success of the restoration and the project. The EIR/EIS discloses all of the potential impacts of California WaterFix and other action alternatives. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion I the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The habitat types and acreages are linked to listed species protections detailed in the Biological Assessment for this alternative, These actions were developed in consultation with federal and state fish and wildlife agencies which will include conditions for implementation of these actions in a Biological Opinion as required under Section 7 of the ESA and incidental take permit as required under CESA Section 2081 (b).
2752	11	This reminds me of some EIR / EISs that point out how there will be a swell amount of habitat to the Marbled Murrelet's liking 40 years from now. Well, that is fine and dandy, but how are they supposed to survive in the meantime with continued logging, increase in corvid population, etc.? Try using a combination of biology and common sense as to whether you can massively alter designated critical habitat for listed fish species during the decades-long construction phase of the Tunnels and expect the species (during our contemporary drought as the new normal era) to survive the construction phase. The so-called "restoration" plan is vague and gets weaker by the month. And even if a restoration plan could still be successful, how will you keep these native fish species alive in sufficient numbers (if any at all) through the decades-long construction phase with climate change as a backdrop? Even if the related agencies halt using their "emergency declarations" (seeking to skirt	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.

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		endangered species laws) which diverts more water to the south than is healthy for the local ecosystems.	The Proposed Project is the result of more than seven years' collaboration and consultation with numerous stakeholders, agencies, public water agencies and environmental organizations. It has been developed with the goals of minimizing and avoiding incidental take of listed species to the maximum extent practicable. 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. Construction-related effects will be avoided and minimized through a number of best management practices, environmental commitments, and Avoidance and Minimization Measures. In-water construction activities would occur between June 1 and October 31 when most covered fish species are least abundant in the in-water construction area. A robust Mitigation, Monitoring, and Reporting Program is being developed that includes comprehensive mitigation targeted at fish and terrestrial species. Additionally, DWR, Reclamation, DFW, USFWS, NMFS, and the public water agencies will establish a robust program of collaborative science, monitoring, and adaptive management. It is assumed the Collaborative Science and Adaptive Management Program (AMMP) developed for Alternative 4A would not, by itself, create nor contribute to any new significant environmental effects; instead, the AMMP would influence the operation and management of facilities and protected or restored habitat associated with Alternative 4A. Collaborative science and adaptive management will support the proposed action by helping to address scientific uncertainty where it exists, and as it relates to the benefits and impacts of the construction and operations of the new water conveyance facility and existing CVP and SWP facilities. The collaborative science effort is expected to inform operational decisions within the ranges established by the biological opinion and 2081b permit for the proposed action. However, if new science suggests that operational changes may be appropriate that fall outside of the operational ranges evaluated in the biological opinion and authorized by the 2081b permit, the appropriate agencies will determine, within their respective authorities, whether those changes should be implemented. An analysis of the biological effects of any such changes will be conducted to determine if those effects fall within the range of effects analyzed and authorized under the biological opinion and 2081b permit. If NMFS, USFWS, or DFW determine that impacts to listed species are greater than those analyzed and authorized under the biological opinion and 2081b Bay Delta Conservation Plan/California WaterFix permit, consultation may need to be reinitiated and/or the permittees may need to seek a 2081b permit amendment. Likewise, if an analysis shows that impacts to water supply are greater than those analyzed in the EIR/EIS, it may be necessary to complete additional environmental review to comply with CEQA or NEPA.
2752	12	One question: seeing that Sacramento River winter-run Chinook salmon need cool water to survive the summer in, how will the temperature be impacted by the decades-long construction phase for the Tunnels (keeping climate change in mind), and how will the temperature of the river and Delta be impacted by the diversion of sometimes up to half of the Sacramento River water volume into the Tunnels primarily for major agribusiness in the southwestern San Joaquin Valley? (You may also keep in mind that 95% of fracking operations in California are in Kern County).	Water temperature effects on salmonids are evaluated in Chapter 11, Fish and Aquatic Resources. The construction window will occur outside the presence of the large majority of salmonids in the Delta. For additional information on in-Delta water temperature effects of the preferred alternative, please see Chapter 5 of the Administrative Draft Biological Assessment. 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.
2752	13	We need better estimates in the documents as to what biological damage would be caused at the specific intake areas for the tunnels due to impingement and entrainment? Are there site-specific studies on species (water, ground, and air) near each intake area? And don't forget how much biological damage can be done building this boondoggle at a depth of 150 feet!	Chapter 11 of the Final EIR/EIS addresses the potential for project alternatives to affect fish. Chapter 12 of the Final EIR/EIS addresses the potential for project alternatives to affect terrestrial species. Both chapters describe the impacts, both negative and positive, and discuss measures that would be implemented to avoid and minimize impacts and to compensate for significant impacts. The effects of north Delta diversion construction on covered salmonids from the Sacramento River region are anticipated to be limited. This is

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			because in-water work would be scheduled to occur within the approved in-water work window (June to October; therefore avoiding the peak salmonid migration periods) and most work would occur within coffer dams. In addition, minimization measures such as vibratory pile driving would be employed. Regarding potential near-field effects of the north Delta diversions, entrainment would not be expected because juvenile salmonids would exceed the minimum size that would be screened effectively. Operation of the proposed intakes to fish agency sweeping and approach velocity criteria for salmonid fry would be done to limit the potential for impingement, with monitoring to judge the effectiveness.
2753	1	The Delta ecosystem has long suffered from degraded water quality, even before the current drought. Lack of freshwater flows through the Delta has created well-documented, catastrophic declines in listed fish species. Proponents claim that the CA Water Fix will improve habitat for fish and wildlife, and yet their own RDEIR/SDEIS shows that that the project will further degrade Delta water quality, even after mitigation.	The water quality assessment in Chapter 8, Water Quality, and modeling results 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 to EC would be less than significant with implementation of the proposed mitigation. The other issues raised by the commenter address the merits of the project.
2753	2	RDEIR/SDEIS Table 31-1 states the following: WQ-11: Effects on electrical conductivity concentrations resulting from facilities operations and maintenance. "Significant and Unavoidable Adverse Impact" under CEQA and "Adverse Impact" under NEPA WQ-32: Effects on Microcystis bloom formation resulting from facilities operations and maintenance (CMI) "Significant and Unavoidable Adverse Impact" under CEQA and "Adverse Impact" under NEPA WQ-33: Effects on Microcystis bloom formation resulting from facilities operations and maintenance (CM2-CM21) "Significant and Unavoidable Adverse Impact" under CEQA and "Adverse Impact" under NEPA Clearly, removing more water from the Delta -- and even worse, taking it from the top of the Delta system -- deprives the system of the freshwater flows needed to keep salinity and Microcystis blooms at bay. These are unacceptable impacts. Water needs to flow through the Delta, not be diverted around it.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS. Please refer to Master Response 14.
2753	3	There are many alternatives to the tunnels, yet none of these is considered in the RDEIR/SDEIS. One such alternative is the Delta-Tulare Water Plan, which would store water in the old Tulare lakebed. This plan could yield a minimum of a million acre feet of additional water for California, without damaging Delta farms or the Delta ecosystem, and at a fraction of the cost of tunnels. More information is at http://northdeltacares.org/2015/10/05/the-delta-tulare-water-plan/ Reclamation and DWR should prepare and circulate a new Draft EIR/EIS that will include alternatives that reduce water exports and increase Delta flows for	Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the BDCP/California WaterFix or FEIR/EIS Analysis of additional modeling scenarios with higher Delta outflow, requested by the State Water Resources Control Board, will be included in Appendix 5E of the FEIR/S.

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		consideration by the public and decision-makers. Please send these folks back to the drawing board.	
2754	1	Given the increasing evidence regarding climate change every effort should be made to make this project climate neutral by including clean renewable energy as part of the project to offset any climate impacts based on "life cycle analyses" of aspects of the project from construction, including procurement of materials through operations.	Please refer to chapter 22. The project has committed to an unprecedented level of carbon neutrality. For additional information about and a summary of the information provided in Chapter 22 please refer to Master Response 19.
2754	2	It should be recognized that the delta was historically a marsh and estuary and that returning portions of it to those conditions should not be considered unreasonable. On a present value basis the cost of state and federal investment in maintaining the existing levee system have been extremely large and probably not economically justified.	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.
2754	3	Even though ever effort should be made to intervene and minimize the effects of climate change it should be recognized that we may be too late to avoid significant sea level rise. The Delta facilities should be designed to accommodate a worse case scenario and define by the studies of the IPCC [Intergovernmental Panel on Climate Change] and others.	California Waterfix would help to address the resilience and adaptability of the Delta to climate change through water delivery facilities combined with a range of operational scenarios, measures focused on the protection, restoration, and enhancement of the Delta ecosystem and measures to reduce other stressors (Environmental Commitments 3, 4, 6, 7, 8, 9, 10, 11, 12, 15, 16. In addition to the added water management flexibility created by new water diversions and operational scenarios, California Waterfix would improve habitat, increase food supplies and reduce the effects of other stressors on the Delta ecosystem. By improving and expanding available habitat, the proposed project would increase resilience and adaptability to climate change by making alternative habitat available during periods of high stress, such as very high or low freshwater inflow or very high salinity intrusion. Multiple analyses were performed in the proposed project to test the robustness of the alternatives to a range of potential future conditions. Water supply, aquatic and terrestrial resources were all analyzed with projected future conditions. The proposed project will likely remain in place and functional far into the future when salinity intrusion may require less frequent use of the south Delta pumps. Far from being stranded assets, the tunnels will be part of the state's strategy in adapting to climate change. More information on ways in which the BDCP/California WaterFix proposes to improve resiliency and adaptability of the Delta to climate change can be found in Chapter 29, Climate Change, EIR/EIS and Appendix A RDEIR/SDEIS and Appendix 3E, Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies, EIR/EIS and RDEIR/SDEIS (in appendix A). Please refer to Master Response 19 (Climate Change and GHGs) for further information regarding climate change and sea level rise.
2754	4	It should be insured that the project will operate by gravity and pumping avoided.	Proposed tunnels for Alternative 4A will carry water by gravity from the intakes to the pumping plant located at the north-east corner of the Clifton Court forebay (CCF). During periods when the Sacramento River stage is higher than proposed North CCF, it is possible to achieve gravity flow from the intakes to NCCF (no pumping will be required).
2754	5	The project should include funding support for mandatory water conservation measures even beyond those that are being implemented during the current drought.	Future water demands under the SWP and CVP water contract municipal uses are consistent with water demand projections in the recent Urban Water Management Plans submitted to DWR which include approaches to meet the 20 percent per capita urban water use in California by 2020. The proposed project is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta. It is consistent with other programs to provide continued investment by the State and other public agencies in conservation as well as other water supplies (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).
2754	6	Support should be given for the development of recycled water supply to minimize our reliance of new supplies. Considering the uncertainties inherent under future	The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of

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		conditions with climate change.	contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures).
2754	7	It should be recognized the Delta facilities may not be justified unless adequate supplies can be insured. Under a potential and likely climate change we will need additional storage, both surface and groundwater along with the conservation and recycling measures noted above.	It is important to note, as an initial matter, that the proposed project is not intended to serve as a state-wide solution to all of California's water problems and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Nor is the proposed project intended to solve all environmental challenges facing the Delta. Please see Master Response 6 (Demand Management) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the proposed project. Additional water storage was eliminated from consideration in the Draft EIR/EIS and RDEIR/SDEIS through the alternatives development and screening process (discussed below and in Appendix 3A, Identification of Water Conveyance Alternatives). As such, the proposed project does not propose storage as a project component. Although the proposed project would be part of an overall statewide water system of which new storage could someday also be a part, Alternative 4A is a stand-alone project which demonstrates independent utility just as future storage projects would demonstrate. Please refer to Master Response 37 (Storage) for additional information.
2755	1	The need to maintain the water levels to protect endangered species in the Bay-Delta area should take priority over new infrastructure to transport water to other regions of California. Greater efforts to conserve water should be made and required in both the agriculture sector and the urban sector, especially in landscape. While I want us to maintain available water for human use, there are so many commonsense measures that have not been put in place. These water conservation measures would require transporting no water from already stressed areas of wild need for water. That is why I oppose this project and ask that you reject this project and require that more stringent conservation measures are undertaken. These measures should be implemented before an energy-intensive and environmentally destructive project like the tunnel should be considered.	The commenter offers an opinion on the merits of a particular water supply augmentation approach (greater conservation) and does not raise a specific issue related to the adequacy of the EIR/EIS. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2755	2	I will address what agriculture should do. Water conservation measures of farms: 1. Water early in the day, never midday. 2. Do not run water in furrows. 3. Use drip if possible. 4. If sprinklers are used do these two things: a. Avoid misting (fogging) (overwatering that leads to waste in evaporation). b. Water at dew point if possible (sometimes this occurs at four in the morning; in summer sometimes it doesn't occur at all). 5. Do not grow foods that are heavily water-intensive (no new plantings of almond trees, for example). 6. Commodities should not take precedence over local food supply. 7. Water sensors should be installed: in the unlikely event that we get rain, water should not be applied.	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.
2755	3	In urban areas there are still many ways to reduce water use that would help if they were encouraged. Some of them are still banned in some localities. These include: 1. Composting toilets. 2. Graywater installations for washers, sinks and showers. There has been a lot of emphasis on water reduction in landscape. There are a lot of people truly making an effort now. 3. There should be no new permits for pools on private property at this time. 4. Many of the measures	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,

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		suggested for agriculture above also apply to landscaping: such as watering at dew point, and water sensors to avoid watering during rain. 5. The measures that have been put in place say what day to water but do not address the fact that watering in the early morning is much different that watering midday.	treatment of contaminated aquifers, or other measures to expand supply and storage.
2756	1	Water should not be wasted. Fracking and other methods of extreme fossil fuel extraction should not be allowed to use water in our state at this time. There is too little of this precious resource of fresh water for us to allow it to be used to extract fossil fuel that is better left in the ground at this time due to the crisis of global warming. Please do not approve the tunnel, and do not allow any of the existing water supply to go to fracking and other extreme extraction methods.	The action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. State constitutional restrictions require the reasonable and beneficial use of water, and state laws require that water pumped from the Delta be put to beneficial uses. Beneficial uses include agricultural, municipal, and industrial consumptive uses; power production; and in-stream uses including fish protection flows. Fracking - or "hydraulic fracturing" -- presumably could be an "industrial" use of water, and is a lawful use of water. Pursuant to Senate Bill 4 from 2013 (Stats. 2013, Ch.313), moreover, the state Department of Conservation, through its Division of Oil, Gas, and Geothermal Resources (DOGGR), is currently working on fracking regulations. Please see Master Response 34 for additional information regarding use of water delivered by proposed water conveyance facilities. One of the State Water Resources Control Board's (State Water Board's) charges is to ensure that the State's water is put to the best possible use and that this use is in the best interest of the California public. This charge is reflected in part by the designation of beneficial uses established through the State Water Board's planning process. These beneficial uses are identified in each Water Quality Control Plan (Basin Plan) issued by the State Water Board. The proposed project Lead Agencies have no power to impose penalties on individual water users. DWR and Reclamation have contracts with various entities, some of which sell water to water retailers, who have individual policies and programs to motivate ratepayers to conserve water. Different districts have the right to take different approaches depending on their individual circumstances.
2756	2	The need to maintain the water levels to protect endangered species in the Bay Delta area should take priority over new infrastructure to transport water to other regions of California.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. The amount of water that DWR and Reclamation can divert from the new north Delta facilities is set by Federal and State regulating agencies, ESA compliance, and project design. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply of the EIR/EIS. Over the long-term, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. 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 to improve ecosystem conditions in the Delta.
2756	3	Greater efforts to conserve water should be made and required in both the agriculture sector and the urban sector, especially in landscape. While I want us to maintain	The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public

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		available water for human use, there are so many common sense measures that have not been put in place. These water conservation measures would require transporting no water from already stressed areas of wild need for water. That is why I oppose this project and ask that you reject this project and require that more stringent conservation measures are undertaken.	agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).
2756	4	First I will address what agriculture should do: Water conservation measures of farms: 1. water early in the day, never mid day. 2. Do not run water in furrows. 3. Use drip if possible. 4. If sprinklers are used do these two things: a. Avoid misting (fogging) (over watering that leads to waste in evaporation). b. water at dewpoint if possible(sometimes this occurs at four in the morning, in summer sometimes it doesn't occur at all) 5. Do not grow foods that are heavily water intensive. (no new plantings of almond trees for example) 6. commodities should not take precedence over local food supply. 7. water sensors should be installed: in the unlikely event that we get rain, water should not be applied.	It is important to note, as an initial matter, that the proposed project is not intended to serve as a state-wide solution to all of California's water problems and it is not an attempt to address directly the need for continued investment by the State and other public agencies in conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage. Nor is the proposed project intended to solve all environmental challenges facing the Delta. Please see Master Response 6 (Demand Management) for further information regarding how many of the suggested components have merit from a state-wide water policy standpoint, and some are being implemented or considered independently throughout the state, but are beyond the scope of the proposed project. Providing regulatory oversight to agribusinesses is outside the scope of the proposed project and environmental analysis. The Lead Agencies do not have land use planning authorities (such as changing local land uses and zoning ordinances or controlling what crops should be planted). Please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised.
2756	5	in urban areas there are still many ways to reduce water use that would help if they were encouraged. Some of them are still banned in some localities. These include: 1. Composting toilets. 2. gray water installations for washers, sinks and showers. There has been a lot of emphasis on water reduction in landscape. There are a lot of people truly making an effort now. 3. There should be no new permits for pools on private property at this time. 4.many of the measures suggested for agriculture above also apply to landscaping: such as watering at dewpoint, and water sensors to avoid watering during rain. 5. The measures that have been put in place say what day to water but do not address the fact that watering in the early morning is much different that watering mid day. These measures should be implemented before an energy intensive and environmentally destructive project like the tunnel should be considered.	The commenter does not raise a specific issue related to the adequacy of the EIR/EIS. Please see Master Response 4 regarding the range of alternatives selected. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the Draft EIR/EIS. In response to public input, several new alternatives have been studied in the Recirculated DEIR/EIS and a new Preferred Alternative (4A) identified.
2757	1	I am opposed to the proposed 37 mile tunnel project. The California Water Fix bypasses the environmental protections provided by CEQA and NEQA. The California EcoRestore has been separated from the Water Fix. How can the California Water Fix with the potential to decimate the Delta legally proceed without the necessary EIR process?	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. The alternatives included in the Draft EIR/EIS and Final EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the EIR/EIS. In fact, as a direct result of the extensive public comments and agency input, the water facility and conveyance options proposed as part of the project changed significantly during the planning process in ways that reduce impacts in the Delta communities. Additional unique Alternatives that were proposed during review of Administrative Drafts of the BDCP and

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			EIR/EIS were also considered and described, See Appendix 3A of the EIR/EIS and Section 4 of the RDEIR/SDEIS. Please refer to Master Response 4 and Master Response 31 for additional details on the selection of alternatives compliance with CEQA and NEPA and the Delta Reform Act.
2757	2	I am opposed to the proposed 37 mile tunnel project. The California Water Fix does not meet the coequal goals required by the 2009 Delta Reform Act. There is no mitigation from the new damage that will be caused by the tunnel construction and the reduced Delta water flows that will result from the tunnels.	By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The project does not increase the amount of water to which DWR holds water rights or for use as allowed under its contracts. It is projected that water deliveries from the federal and state water projects under a fully implemented project would be about the same as the average annual amount diverted in the last 20 years. Refer to Master Response 26 (Changes in Delta Exports). Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline; which meet the coequal goals for the Delta Reform Act. Refer to Master Response 31 (Delta Reform Act). Resource areas are addressed separately under sections for each of the new project Alternatives, including surface water, groundwater, water quality, fish and aquatic resources, terrestrial biological resources, agricultural resources, air quality and greenhouse gases, and others. Where impacts are determined to be significant, environmental commitments and mitigation measures will be implemented to avoid and/or offset these effects, where possible.
2757	3	I am opposed to the proposed 37 mile tunnel project. The comments from the Kern County Water Agency make it clear that they expect water even at the expense of the Delta estuary. The small Delta farmers, farming 500,000 acres of prime peat farm land rely on Delta water, which would become saline under the Kern County Water Agency's demands. This is not logical, but is indicative of the power of Big Agriculture. It takes twice as much water to irrigate the desert lands to the south, which in turn leach out selenium. What is the logic in ruining the Delta to irrigate the desert? Where are the real controls to protect the Delta farming, fishery, and recreation? The water agencies expect more water and could care less about the damage to the Delta.	The issue of crops and water use is beyond the scope of the proposed project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. As described under Impact AG-2 in Chapter 14, Agriculture, water quality modeling results indicate that it is unlikely that there would be increased frequency of exceedance of agricultural electrical conductivity (salinity) objectives in the western, interior, or southern Delta. However, there could be increased long-term and drought period average EC levels during the summer months in the Sacramento River at Emmaton under Alternative 4A relative to the No Action Alternative (ELT), which could adversely affect agricultural beneficial uses. Implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 (including Mitigation Measure WQ-11ea) will reduce the severity of these adverse effects.
2757	4	I am opposed to the proposed 37 mile tunnel project. Real water increases such as desalination and reuse have not been looked at. Significant progress is being made in desalination making it comparable in cost to the California Water Fix and actually produces more water without ruining the fragile Delta ecosystem. If Big Agriculture wants a reliable water supply, they should look to the ocean.	For more information regarding desalination please see Master Response 7.
2757	5	I am opposed to the proposed 37 mile tunnel project. This project cleverly avoids a	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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		vote by tax payers and rate payers. This project is un-American.	
2757	6	I am opposed to the proposed 37 mile tunnel project. This project does not take into account Global Warming, which has already shown us less water available in the Sierra Nevada.	A wide range of future climate change conditions were systematically modeled and analyzed including potential futures with less precipitation. Please refer to Master Response 19 for a detailed summary of the modeling and analysis done regarding climate change.
2757	7	I am opposed to the proposed 37 mile tunnel project. California has issued water rights many times greater than available water. Agriculture needs to be regulated and curtailed. Permanent crops like almonds and pistachios continue to be planted even during the worst drought in California recorded history. Why are more permanent crops allowed in a desert state with unreliable water supply?	Water rights issued on rivers in the watersheds that provide SWP and CVP water (Trinity and Central Valley watersheds) include a wide range of beneficial uses from hydropower to municipal, industrial, and agricultural water users. However, not all of the water diverted under the water rights is consumptively used. For example, water diverted for hydropower electric generation is fully returned to the water bodies; and a portion of the water diverted from municipal, industrial, and agricultural water uses is returned to the water bodies. In addition, the amount of water diverted is dependent upon water rights priorities and the need to meet environmental flow and quality requirements. Therefore, it is difficult to compare the total volume of water rights licenses to the total amount of water available in the system. For example, water rights issued to DWR and Reclamation are not fully available to provide water under the SWP and CVP water contracts in many years due to the demands of senior water rights holders and regulatory requirements. In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor any change in total water rights issued to DWR and Reclamation. The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation.
2757	8	I am opposed to the proposed 37 mile tunnel project. The California WaterFix does not help reduce reliance on Delta imports as mandated by the 2009 Delta Reform Act.	Under the range of alternatives considered in the EIR/S full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors, as presented in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. Long-term water deliveries to SWP and CVP water contractors located south of the Delta are lower under Alternatives 6, 7, and 8 as compared to the Existing Conditions and the No Action Alternative. The EIR/S and the Draft BDCP were prepared in a manner to comply with the 2009 Delta Reform Act, as described in Appendix 3I, BDCP Compliance with the 2009 Delta Reform Act, of the Final EIR/EIS. 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. 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, Water Demand Management).
2757	9	I am opposed to the proposed 37 mile tunnel project. Barges and construction for years through recreational waterways is not the way to protect Delta recreation. The route to save the estuary, would be to route the tunnels far east, by I-5.	Please refer to Master Response 4 regarding selection of alternatives. Mitigation Measure TRANS-1a would reduce impacts on marine navigation by development and implementation of site-specific construction traffic management plans, including specific measures related to management of barges and stipulations to

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			notify the commercial and leisure boating communities of proposed barge operations in the waterways.
2758	1	We strongly object to the construction of these two tunnels for the following reasons: We agree with Congresswoman Matsui that the diversion will take the majority of the Sacramento River flow at times when the impact of that action will damage the environment, perhaps, even destroy some ecosystems downriver.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2758	2	We are very concerned about the tunnels impact on fish and wildlife. The Delta has been manipulated by humans so much that its existence as a healthy environment is in question. The tunnels truly are a 20th century solution that has more to do with putting people to work than fixing the water mess. There may have been 1 million hours of deliberation on this topic as the Governor claims. If people stopped listening and searching for a better solution years ago then the number of hours is not relevant.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The commenter does not offer any specifics impacts related to their concerns about fish and wildlife.
2758	3	Restore the delta.org has offered an alternative to achieve the goals without risking the environment of entire stretches of river, along with the economic and physical well being of people along the river. It is much cheaper and offers incremental steps. Please consider these ideas as a wiser choice.	DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. In 2009, the Delta Reform Act (SBX7 1) was passed by the Legislature to establish the overall water policy for the state of California. Among the plan's many elements is the requirement that the DSC develop a comprehensive management plan for the Delta, called the "Delta Plan." The legislation assigns specific responsibility for ensuring protection of the "Delta as a place" to the DSC by requiring the DSC to "develop, for consideration and incorporation into the Delta Plan by the council, a proposal to protect, enhance and sustain the unique cultural, historical, recreational, agricultural and economic values of the Delta as an evolving place, in a manner consistent with the coequal goals" (Water Code Section 85301(a).) The legislation also identifies the Delta Protection Commission as the "appropriate agency to identify and provide recommendations to the Delta Stewardship Council on methods of preserving the Delta as an evolving place as the Delta Stewardship Council develops and implements the Delta Plan." (Public Resources Code Section 29703.5(a).) Please see Master Response 24, Delta as a Place, for additional information regarding how the impacts to the Delta have been addressed. Although many of the proposed alternatives included meritorious water policy principles, the proposals rejected by the Lead Agencies did not qualify as appropriate alternatives for various reasons. For example, proposals were rejected because they were inconsistent with the project's objectives and purpose and need or included components that are beyond the scope of the project. The text of the Draft EIR/EIS in Chapter 3 (section 3.2) and Appendix 3A to that document thoroughly explain the process used to develop the alternatives, and explain why certain potential alternatives were considered but ultimately rejected by the Lead Agencies. Master Response 4 (Alternatives) provides additional information on the development and selection of alternatives.
2758	4	The study and science of the use of waterways and wetlands has changed, technology has changed and our understanding of how, rivers, agriculture, wetlands, wildlife conservation, a changing climate and urban water use relate and intertwine has changed. Please give this new knowledge and understanding a chance to be included in the attempt to improve our methods of allocating and using water for all	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP

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		Californians and for our state's environment.	and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2758	5	We all must live in a present of limited resources where the wise use and stewardship is essential for sustaining the future. These tunnels are not wise stewardship of the public trust.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Refer to Master Response 3 (Purpose and Need).
2759	1	The present method of exporting water through the Delta is untenable, so finding a better solution for this incomplete and defective method is imperative for project integrity in the face of potential earthquakes and sea level rise, as well as the health of aquatic and estuarine habitats.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2759	2	While heading up an environmental and mathematical analysis of the problem and managing several subsequent consultant analyses during the eighties and nineties, we concluded that the Peripheral surface water canal [PC] was the best solution for transferring water across the Delta. However, that solution was defeated by determined political and public campaigns to discredit it due to the perceived excessive expense to Southern California and San Joaquin/Tulare Basin users, righteous indignation from Delta water users who felt they were entitled to the higher quality water that the SWP-CVP projects provided them (compared to what they received historically), and problematic environmental concerns even though the PC was still considered the best overall compromise. Although the current preferred Plan is likely to solve many of the problems within the Delta, especially the preservation of most of the current farming practices in the Delta and the viability of the SWP-CVP, the fact remains that placing the water conveyance underground removes all of the habitat and recreational benefits that would have been derived from a broad, low-velocity surface canal.	Please note that the preferred alternative is now Alternative 4A (i.e., the California WaterFix Project) and no longer includes an HCP. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please also refer to Master Response 36 (Peripheral Canal), which addresses how today's overall water management approach includes a much greater emphasis on water conservation, reducing reliance on Delta water supplies (as mandated by the 2009 Delta Reform Act), and greater environmental protections than existed three decades ago.
2759	3	The gutting of the previously proposed and meticulously planned Delta habitat restoration plan removes most of the SWP-CVP export mitigation benefits from the Delta Conveyance Plan. This represents a huge loss to the environment and a breach of faith to those of us who believed that it was a vitally important component and spent much of our careers helping to formulate it.	The BDCP and action alternatives presented in the Draft EIR/EIS are considered viable alternatives for the purpose of this CEQA/NEPA environmental review process and will be considered during the project decision-making process. Although the California WaterFix (Alternative 4A) is considered the preferred CEQA and NEPA alternative, restoration actions in the form of Environmental Commitments are incorporated into this alternative to reduce effects of constructing and operating conveyance facilities. The California EcoRestore program is a separate program for restoring, enhancing and protecting Delta habitat that would be implemented in the next few years to restore up to 30,000 acres of Delta habitat.
2759	4	The events and scientific findings since earlier studies were done throws the entire concept of the Water Projects into some degree of doubt. It is possible that with climate change unquestionably upon us and the current drought as a portend of future conditions there will be insufficient water left in the north at the times of need and opportunity to export it to justify continued efforts to maintain their viability. This will be especially true if water storage facilities are lacking (they were an essential component of the historical proposals contained in SB-200 and its predecessors but are	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The amount of water that DWR and Reclamation can divert from the new

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		absent from this Plan). Northern California counties in Areas of Origin are currently sacrificing their own water supplies to benefit and sustain water exports to the south and the Bay Area. Water users in the north should be extremely concerned about the threat to their future well-being being placed upon them. It is especially disconcerting to see, in the midst of the current drought, huge corporately-owned orchards being sustained by exports from the Delta to the foothills on the west side of the San Joaquin Valley where they should not have been planted in the first place. Not only is this water denied to Valley water users at lower elevations, but the agricultural drainage from these ill-conceived farms further contaminates the groundwater basins of the Valley, making them progressively unfit for irrigation and environmental uses in the historically rich bottomlands. These kinds of uses for Delta exports are unsustainable and unjustifiable and present further problems for the much-needed management of agricultural drainage in the Valley.	north Delta facilities is set by Federal and State regulating agencies, ESA compliance, and project design. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. The total amount of water exported by month in each water year type for each action alternative is presented in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. As shown in Appendix 5A, Section C, the north Delta intake tunnels would not be fully utilized except for a few months in wet years. However, it is important to have the maximum capacity in the intakes and tunnels during those periods of time to convey water during extremely wet periods to areas south of the Delta for storage and use during drier times. The north Delta intakes would have minimal flows that would be required for maintenance of the pumps during critical dry years. The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Demand Management Measures). As discussed in Chapter 5, Water Supply, of the EIR/S, climate change, sea level rise, and population growth in the northern Delta watershed are anticipated to effect senior water rights holders as well as the SWP and CVP water users (as shown in the comparison between the Existing Conditions and the No Action Alternative model runs) with or without implementation of the action alternatives. Effects due to climate change, sea level rise, and population growth under the No Action Alternative are not due to implementation of the proposed action and are provided for informational purposes only and do not lead to mitigation. The EIR/EIS evaluates long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The evaluation is a comparative analysis to determine the incremental differences between conditions under 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 studies have been and will continue to be prepared when water allocations, water quality criteria, and other criteria are modified in emergencies. The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation.
2759	5	[A] concern related to climate change is that the many of the very aquatic and estuarine species/populations, including fish, that we are trying to preserve with the Delta Project may well become unsustainable in this hydrologic system due to rising water temperatures caused by climate change and droughts. It may well be a hard fact of life in view of the general political reluctance to seriously address that impending problem that native and even hatchery-raised salmon, steelhead and other anadromous fish will die out in the Central Valley of California, a tragic but unavoidable loss if current climate trends continue. This risk factor should be considered and weighed carefully in the decisions to be made regarding the most appropriate targets for preservation.	Consideration of climate change is inherently included in the EIR/S. Climate change is included throughout the modeling and analysis of alternatives. All conservation measures, environmental commitments, and mitigation measures considered climate change and sea level rise in their development.
2759	6	The need to provide adequate Delta outflows to the Bay and Pacific Ocean should be paramount. Regardless of the nature and identity of the species that ultimately survive	The proposed project was considered as only part of a state-wide response to California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public

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		man's modifications of the estuarine system and climate change, their viability and contribution to the vital productivity of these systems depend on the silt, water and their contained nutrients and minerals borne by the outflowing rivers. The utmost attention and care must be directed to making sure that adequate outflow remains after diversions to sustain these estuarine and oceanic processes. Even though desalination has its own inherent environmental impacts, the continued diversion of large quantities of water from inland waterways may be hard to justify while coastal communities make inadequate efforts to advance the opportunities available to them to make use of adjacent ocean waters for consumptive uses through the latest viable and cost-effective salt removal technologies.	agencies in local water self-sufficiency such as conservation, storage, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Master Response 6 and Section 1.C.3 of Appendix 1C, Demand Management Measures).
2760	1	Assuming the California WaterFix is approved regardless of the many reasons it should not be, the construction years will cause the demise of the Delta as we know and love it.	For more information regarding socioeconomic impacts please see Chapter 16 of the FEIR/EIS.
2760	2	I submitted comments on the prior BDCP EIR and was disappointed, to say the least, to see in the current California WaterFix version that the alignment choice continues to be through the heart of the Delta, where construction has the potential to do the most damage to the fragile estuary. The pounding noise, pollution, barges, and other construction impacts will not help save the salmon or the bird estuaries. The plan will not protect recreation. The mitigation listed is ridiculous and without merit or thought.	This is a general comment about the adequacy of the EIR/EIS, proposed alternatives and recommended mitigation measures. Construction impacts of all of the action alternatives are disclosed in the EIR/EIS. Alternative's 4 and 4A have been shown to substantially reduce construction effects, including noise and air quality effects compared to other alternatives that include construction of conveyance canals. All of the impacts of the alternatives, including those on fish and terrestrial species are disclosed in Chapter 11 and 12 of the EIR/EIs. Where impacts were determined to be significant/adverse, mitigation measures are presented to reduce these impact. 15 alternatives and 3 new subalternatives were analyzed in the EIR/S and the RDEIR/RSEIS respectively. Four major alignments have been included in the EIR/S: Through-Delta, East of the Sacramento River, West of the Sacramento River, and a Tunnel under the Delta. Many additional proposals by public and private individuals and organizations have also been evaluated and described in Chapter 3 of the EIR/S and Appendix 3A, Identification of Water Conveyance Alternatives, Conservation Measure 1. Regarding development of alternatives for the EIR/EIS, a description of the process the Lead Agencies followed to develop and screen alternatives is provided in Master Response 4. For more information regarding purpose and need please see Master Response 3.
2760	3	The impacts on boating and recreation are not seriously considered or adequately included in the California WaterFix documentation. The maps and documentation in the plan do not even name the primary anchorage for the south Delta, Mildred Island. The plans and maps do not identify where the primary sloughs are for recreational water skiing and wake boarding. Instead, those very sloughs are the target to be blocked off for years with barges and construction. The resulting impact to the boating communities' economy is not included in the plan. The plan is completely lacking regarding economic impacts due to construction on boating and recreation. And as I commented before, it is ludicrous to say that closing the Twin Sloughs (Victoria Slough/Woodward Slough), a prime waterski/wakeboard area near Discovery Bay, is "mitigated" by "similar" sloughs in the North Bay. Young boaters from Discovery Bay cannot even get to those sloughs. It wipes Discovery Bay off the map as being a prime recreational community.	The methodology used in Chapter 15 to determine well-established recreation sites entailed using GIS data layers from DWR, California Protected Areas Data Portal, Green Info Network, USFWS, and Recreation areas developed from AECOM and ICF. As such, generally those include more formal recreation sites. The Delta, however, has countless informal recreation sites, which would be infeasible to track or list. Impacts to waterskiing and wakeboarding, and popular sloughs used for those activities, are described in Impact REC-3. Mitigation Measure TRANS-1a would reduce impacts on marine navigation by development and implementation of site-specific construction traffic management plans, including specific measures related to management of barges and stipulations to notify the commercial and leisure boating communities of proposed barge operations in the waterways. While the environmental commitments would reduce impacts on water-based recreation (water-skiing, wakeboarding, tubing) in these areas by creating alternative recreation opportunities for those eliminated during construction, these impacts would be long-term and therefore considered significant and unavoidable. Please refer to Alternative 4A in Chapter 16, Socioeconomics, Impact ECON-1 regarding temporary effects on regional economics and employment, ECON-3 regarding changes in community character, ECON-4 regarding

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			changes in local government fiscal conditions, and ECON-5 regarding recreational economics.
2760	4	Dewatering wells is not acceptable. That will ruin farms and dislocate farmers from their homes.	The tunnel would be installed approximately 100 to 150 feet below the ground surface. No dewatering or other construction activities would occur along the tunnel alignment except at the tunnel shaft sites. 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 including at tunnel shaft locations. The effects on groundwater at locations with slurry wall installations would not result in significant effects as compared to Existing Conditions. Temporary dewatering activities could occur along the pipeline. The dewatering would occur in the immediate vicinity of the open trench along the pipeline alignment; and dewatering would cease as the trench is backfilled. It is possible, that some impacts may result in effects depending upon specific information that would be collected during design and construction phase. 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.
2760	5	The problem of the muck ponds has not been addressed or resolved. The plan still leaves piles of muck (OK, "Reusable Tunnel Material") piled throughout the estuary.	Reusable Tunnel Material (RTM) produced as a result of the proposed project will be temporarily stored in designated storage areas and the project proponents will develop site-specific plans for the beneficial reuse of the RTM to the greatest extent feasible. Implementation of the Environmental Commitment: Disposal and Reuse of Spoils, Reusable Tunnel Material (RTM), and Dredged Material would potentially substantially reduce the severity of impacts from RTM, spoils and dredged materials on several resources. In addition, for some impacts where this environmental commitment would be relied upon, mitigation measures would still be necessary to reduce a significant impact to less than significant. For example, to address potentially significant alteration in the existing visual quality or character (Impact AES-1 [in part due to spoil/borrow and RTM storage]), several mitigation measures would be implemented (e.g., AES-1a, AES-1b, AES-1d), including Mitigation Measure AES-1c:, Develop and Implement a Spoil/Borrow and Reusable Tunnel Material Area Management Plan. Siting criteria for the RTM is described in section 3B.2.18.1, Material Storage Site Determination, and development of plans to reuse RTM is described in Section 3B.2.18.4, Material Reuse Plans.
2760	6	The only rational option is to move the alignment to the Eastern Alignment along the already industrial areas near I-5 and down Highway 4. Yes, that would be more expensive. But since the co-equal goals require protection of the estuary, that is the only viable option.	Please see Master Response 4 regarding the range of alternatives selected. The alternatives included in the Draft EIR/EIS represent a legally adequate reasonable range of alternatives and the scope of the analysis of alternatives fully complies with both CEQA and NEPA. The Lead Agencies carefully considered all potential alternatives that were proposed during the scoping process and during time of preparation of the Draft EIR/EIS. The specific proposals that were considered but ultimately rejected by the Lead Agencies are discussed in Appendix 3A of the DEIR/EIS, Identification of Water Conveyance Alternatives, Conservation Measure 1. Appendix 3A thoroughly explains why various proposals were not analyzed in the EIR/EIS.
2760	7	The operational phase is the most worrisome part of the plan. We have watched with dismay the last four years as the State continues to mismanage water resources, by moving too much water from the north to the south at the start of the drought, leaving insufficient water in Shasta and other reservoirs to protect the salmon, and now they are nearly decimated. The actions taken this year to try to save them were too little	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued

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		and too late. Now the farmers are complaining that the actions should not have been taken and claim it's an issue of the farmers versus the fish. Nothing is further from the truth. The issue is that too much water has been promised, too much "paper water," which does not exist, causing farmers to plant based on unrealistic expectations.	to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor any change in total water rights issued to DWR and Reclamation. The amount of water that DWR and Reclamation can divert from the new north Delta facilities is set by Federal and State regulating agencies, ESA compliance, and project design. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply of the EIR/EIS. Over the long-term, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. The water would be stored at locations south of the Delta during the high flow periods to allow reductions in deliveries to SWP and CVP water users in drier periods. The EIR/EIS evaluates long-term operation of the SWP and CVP over an 82-year long hydrologic period with extended wet periods and dry/critical dry periods. The evaluation is a comparative analysis to determine the incremental differences between conditions under the Alternatives 1 through 9 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.
2760	8	The plan needs to identify the amount of water available for export, using the 2009 Delta Flows document. Then the state can allocate the available water reliably, instead of this hodgepodge, erroneous model used now.	It appears that this comment is referring to the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem report. As described in Appendix 3A, Identification of Water Conveyance Alternatives Conservation Measure 1, of the EIR/EIS, one of the potential alternatives considered was based upon the State Water Resources Control Board 2010 Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, which described providing up to 75 percent of unimpaired flow into the Delta to improve aquatic resources habitat conditions. This potential alternative was not evaluated in detail because the flow recommendations in the 2010 report could not be achieved without adverse impacts to cold water management for fisheries in the Sacramento, Feather, and American rivers without reductions in non-SWP and non-CVP water rights diversions. The purpose and need of this EIR/EIS would not allow changes to non-SWP and non-CVP water rights. However, Alternatives 7 and 8 in the EIR/EIS reflect similar flow criteria in a manner that would only affect SWP and CVP water rights.
2760	9	The state needs to start asking questions about how many crops we can support, and on what land, and stop the "paper water" over-commitment of resources. It is the expansion of farming beyond the available water resources that has brought California to this brink of disaster. The state needs to identify the water requirements, as the Legislature dictated in 2009, before moving ahead. This project currently is illegal.	State constitutional restrictions require the reasonable and beneficial use of water and state law requires that water supplied from the Delta be put to beneficial uses. The lead agencies do not have the authority to designate what water deliveries are used for. Please see Master Response 34 regarding the potential uses of water delivered via the proposed conveyance facilities. Through the Legislature and through executive agencies, California has embraced water conservation on numerous fronts, as have many California water agencies. Many of these efforts are highlighted in Appendix 1C, Demand Management Measures, EIR/EIS, which describes conservation, water use efficiency, and other sources of water supply, including recycled water. While these elements are not proposed as part of the project, the Lead Agencies recognize that they are important tools in managing California's water resources.
2760	10	The Independent Science Board correctly pointed out that the "Adaptive Management" model in the plan is woefully insufficient. The state has shown the inability to manage the system. There is no adequate structure identified in the plan that gives the populace any assurance that a real adaptive management model will work. Without that, we know that too much water will continue to be exported, as it has been for the past 10-20 years, and Northern California will continue to be	For responses to comments related to the Delta Independent Science Board's letters, please refer to comment letters BDCP 1448 and/or RECIRC 2546. For more information regarding adaptive management please see Master Response 33 and Chapter 3 of the FEIR/EIS.

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		impacted.	
2760	11	Removing too much water will allow too much salt water to intrude, affecting Delta farms -- the richest, most fertile farmland in the country. We are giving up rich peat soil, which requires little water, for tainted, ruined desert lands. This makes no sense at all.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2760	12	For the past 10-20 years, the corporate agribusinesses and Los Angeles developers have ruled how the water is managed in the state. Once the tunnels are in, there will be no way to restrict the water they want to obtain, since there is no real "adaptive management" process documented in the plan. It is all hand-waving.	Adaptive management is intended to respond to uncertainties (e.g., extent of effects associated with climate change or additional information gained during the monitoring. In the event that the adaptive management would make substantive changes resulting in new adverse effects, those changes would need to undergo additional environmental review. See Master Response 33 regarding more details on adaptive management. The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2760	13	The cost analysis is lacking and not realistic.	Please refer to Master Response 5 for additional details on the costs of project implementation.
2760	14	Building the tunnels is guaranteed to destroy Northern California farms, salmon runs, and communities. And it will ultimately impact the water quality further downstream, including the San Francisco Bay.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts; as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2761	1	The Delta is a very fragile ecosystem and one of the largest and most beautiful fresh water estuaries and wild life habitats in the US. Please do not think for a second that it will survive if the tunnel is put in.	As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2761	2	We all know the Delta is connected to the ocean, and without the fresh water flowing to keep it at bay, salt water will continue to move up into what has historically been fresh water. The natural vegetation will die, the trees will fall and the levies will break. The pro-tunnel people talk about putting in dikes and gates to keep the salt water out, but that is simply ridiculous, and will make the spread of unwanted aquatic plants even worse.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/EIS.
2761	3	Bottom line is [it's] all about money, big money. Big agribusiness bought millions of acres of desert for cheap along the canal and have made millions over the past 40 years. They paid little for the "desert" back then, but with an almost endless supply of cheap water, were able to make big money. It is a sorry fact, but there simply is not enough water to keep feeding the water-thirsty desert, and sacrificing the Delta is simply not right. This thirst for water has killed several other big lakes [and] the mighty Colorado River, and I am appalled that people even consider this an option.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2761	4	There are billions of tons of food that go to waste in the US every year, so I don't think I could ever be convinced that we "the people" will suffer if we either shut down many of the more wasteful farms, or we end up paying a bit more for food because they have to put in a desalinization plant and create their own water. Desalinization of what is 80% already fresh water entering the canal, only when it is needed, will certainly cost money, but I bet the farmers, if they are paying for their water the same as everyone else, the demand will drop. I beg you, face the reality that big agribusiness in desert has either run its course or	For more information regarding desalination please see Master Response 7.

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		they need to find another solution like desalinization, moving to an area where there is water, becoming very efficient and living with what is available in a water supply, or something, but destroying one of our most beautiful natural wonders is just so wrong on so many levels.	
2761	5	I just heard big agribusiness is buying up islands and tracts of land to get more water rights. Are we so consumed with lawyers and money that we are actually letting this happen?	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2762	1	Of most concern to CDFW is the basis of comparison for conducting the CEQA analyses. In the Draft EIR/EIS' analysis of the conservation plan-based alternatives, the analyses for certain aquatic species impacts from operations of the proposed project described the modeled project impacts as compared to Existing Conditions, but ultimately reached determinations on significance based on a comparison to the NEPA baseline, which uses the NAA_LLT [No Action Alternative Late Long Term] (i.e. 2060) conditions. The rationale for this approach was that it enabled partitioning of the effects of implementation of the alternative from the effects of sea level rise, climate change and future water demands. The recirculated EIR/EIS evaluates three new alternatives that are not proposed as conservation plans, and again for project operations' impacts to aquatic species; the analyses often reach significance conclusions based on a comparison to future conditions (NAA_ELT [Early Long Term]) rather than a comparison to Existing Conditions. However, Alternative 4A is not a large-scale and long-term conservation focused only on construction of water conveyance facilities and associated mitigation which will be implemented on a much shorter timeframe of 10-15 years (the NAA_ELT compares conditions out to 2025). We believe that the analyses should more clearly describe the project's impacts in comparison to Existing Conditions. We also recommend that further information needs to be described as to why the comparison to the "future conditions" baseline is justified based on unusual aspects of the project or conditions.	As stated in Section 4.2.1 of the 2013 Draft EIR/EIS, "the CEQA baseline for assessing significance of impacts of any proposed project is normally the environmental setting, or existing conditions, at the time a Notice of Preparation (NOP) is issued (State CEQA Guidelines Section 15125[a])." However, a future baseline may be used when the lead agency can show that an existing conditions analysis would be "misleading or without informational value." In several instances in the alternatives analysis, the RDEIR/SDEIS concludes that a comparison to the existing conditions baseline "may not offer a clear understanding of the impact of the alternative on the environment." Specifically, the NEPA No Action Alternative baseline is used for evaluation of impacts to fish and aquatic resources because the action alternative modeling does not partition the effects of implementation of the alternatives from the effects of sea level rise, climate change, and future water demands. As a result, use of the NEPA No Action Alternative is consistent with the CEQA guidelines as it allows clear understanding of the impact of the alternative on the environment. For more information regarding environmental baselines please see Master Response 1.
2762	2	There are outstanding CDFW comments that have not fully been resolved from our June 2015 comments to the administrative draft revised EIR/EIS.	All comments received have since been addressed with responses and/or changes to the EIR/EIS where necessary.
2762	3	Several of the effects analyses, results, and conclusions do not reflect current efforts being undertaken through the Section 7 process and discussions of the Fish and Game Code section 2081(b) permit application. CDFW generally understands that as these methods, analyses and results are finalized they will be included in the final EIR/EIS to ensure clarity and consistency.	The commenter does not identify specific cases where the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS effects analyses, results, and conclusions do not reflect current efforts being undertaken through the Section 7 process and discussions of the Fish and Game Code section 2081(b) permit application. As much as possible, the analysis in the EIR/EIS has tried to be consistent with the approach in the permits; however, in order to be consistent with the methods to the analysis for the BDCP alternatives the EIR/EIS had to maintain a natural community level approach to the analysis and the conservation, which is required under NEPA. Section 1502.14 of the Council on Environmental Quality (CEQ) Guidelines states that in the "Alternatives" section of an EIS, agencies shall "Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits." Please refer to Master Response 45 (Permitting) and Master Response 5 (Compliance with ESA) for additional information on permits and Section 7.

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2762	4	We [CDFW] had some difficulty in clearly distinguishing which of the HCP/NCCP elements carry over to Alternative 4A. This is particularly a concern regarding Avoidance and Minimization Measures, project operations criteria and other details of the BDCP that were not included or clearly referenced in the project description.	The differences between BDCP (Alternative 4) and Alternative 4A are discussed in Chapter 3 of the Final EIR/EIS. The Avoidance and Minimization Measures that are also applicable to Alternative 4A are specifically addressed in the analyses for the respective resources in Chapters 11 and 12 of the Final EIR/EIS.
2762	5	Several of the mitigation measures and CEQA conclusions need additional clarification to demonstrate that they will be effective in reducing or eliminating impacts and can be feasibly implemented.	The commenter offers a general opinion and does not provide the specificity necessary to enable a response.
2762	6	The CEQA analyses for the proposed environmental commitments do not clearly demonstrate how each species' habitat requirements will be met when an environmental commitment targets species that utilize the same natural communities. [There are] several examples of cases where species with disparate habitat requirements are assumed to benefit from the same mitigation acreages. This is an important clarification necessary for ensuring that impacts to individual species are reduced to a less-than-significant level.	As discussed in Chapter 3 of the Final EIR/EIS, Section 3.6.3, Environmental Commitments, the Environmental Commitments would be implemented in the same manner as described in the corresponding Conservation Measures in the BDCP. For example, Conservation Measure 7 includes siting and design considerations to meet the needs of multiple species, including riparian brush rabbit, valley elderberry longhorn beetle, and Swainson's hawk. CM 7 also includes guidance for creating structural diversity and structural heterogeneity, early to mid-successional vegetation, and late successional vegetation. Furthermore, Alternative 4A also includes specific Resource Restoration and Protection Principles (see Table 3-7 in Chapter 3 of the EIR/EIS), which carry forward many of the biological goals and objectives for natural communities and species identified in the BDCP. Where necessary additional guidance is provides in some AMMs and specific mitigation measures to address the needs of species with specific habitat requirements.
2762	7	The document does not clearly explain how modeled physical changes are translated into biological effects and subsequently how those biological effects are, or are not, then concluded to be significant/adverse, based on the significance thresholds articulated. If these determinations are based on professional experience, rather than a quantitative process that translates modeled physical effects into biological effects, then those determinations and the basis for the qualitative assumptions, should be made clear. As should the information about what species population estimates or species abundance indices these modeled effects are applied to in the assessments.	The methods applied for relating physical changes into biological effects are summarized in Sections 11.3.2 (Aquatic) and 12.3.2 (Terrestrial) of the EIR/S. Conclusions regarding significance of results were based on professional judgement, informed by the results of the modeling when available. The methods describe the sources of information regarding species abundance, etc., as necessary; there is cross-referencing to other documents (e.g., public draft BDCP) as relevant.
2762	8	Under Alternative 4A, egg mortality (according to the Reclamation egg mortality model) in drier water years, during which winter-run Chinook salmon would already be stressed due to reduced flows and increased temperatures, would be up to 18% greater (absolute difference) than egg mortality under the CEQA baseline. The extent of spawning habitat and egg incubation conditions according to the SacEFT model are predicted to be 21% and 9% lower, respectively, on an absolute scale. Years with water temperatures at the red level of concern and exceedances above NMFS temperature thresholds would be substantially greater under Alternative 4A relative to the CEQA baseline. Therefore, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable spawning habitat and substantially reduce the number of winter-run as a result of egg mortality, although, due to the highly suppressed population size of winter-run Chinook salmon relative to historical population sizes, it is unlikely that spawning habitat is currently limiting. (Section 4, p. 4.3.7-60) Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce juvenile migration conditions for winter-run Chinook salmon upstream of the Delta. Under Alternative 4A, there would be reductions in flow and increased temperatures in the Sacramento River that could lead to biologically meaningful reductions in juvenile migration conditions, thereby	As described throughout Chapter 11 of the Final EIR/EIS, the CEQA evaluation of alternatives includes the effects of climate change. To properly assess the effects of the alternative, and not climate change, the NEPA analysis is also utilized to develop the CEQA conclusions. As described for this and several other alternatives, the CEQA analysis describes the modeled differences between existing conditions, which does not include climate change effects, and the alternative, which includes climate change effects. The alternatives are not responsible for mitigating the effects of climate change. Please also see Master Response 1 regarding baselines.

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		reducing survival relative to Existing Conditions. Reduced migration conditions would delay or eliminate successful migration necessary to complete the winter-run Chinook salmon life cycle. Winter-run Chinook salmon juvenile survival through the Delta for Alternative 4A would be similar or slightly lower than for Existing Conditions. (Section 4, p. 4.3.7-72)	
2762	9	Under Alternative 4A (including climate change effects), there are flow and storage reductions, as well as temperature increases in the Sacramento River that would lead to biologically meaningful increases in egg mortality and overall reduced habitat conditions for spawning spring-run and egg incubation, as compared to Existing Conditions. Flows in the Feather River low-flow channel do not differ between Alternative 4A and Existing Conditions. However, water temperature analyses in the Feather River low-flow channel using thresholds developed in coordination with NMFS indicate that there would be moderate to large negative effects on temperature conditions during spring-run Chinook salmon spawning and egg incubation. (Section 4, p. 4.3.7-98)	As described in Appendix 5A, Section C, modeling results in the Final EIR/EIS indicate that reservoir surface water elevations in Lake Oroville would be similar or higher except in June through August under the proposed project (Alternative 4A) as compared to the No Action Alternative. The lower reservoir surface water elevations would result in higher temperatures during the summer months in the Feather River. The surface water elevations in Lake Oroville are lower than under the Existing Conditions in all months primarily due to climate change and sea level rise assumptions under Alternative 4A as compared to Existing Conditions. These changes would occur with or without implementation of the proposed project and would result in increased water temperatures in the downstream rivers, and no mitigation is required. Also see response to comment 2762-8 regarding climate change inclusion in the CEQA analysis.
2762	10	Under Alternative 4A, there would be small to moderate flow reductions and temperature increases in the Feather River. SacEFT predicts improvements to spawning habitat availability for spring-run Chinook salmon in the Sacramento River under Alternative 4A and SALMOD predict slightly reduced habitat conditions. Exceedances above NMFS temperature thresholds would be higher under Alternative 4A relative to Existing Conditions. Results would be similar among model scenarios. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce rearing habitat and substantially reduce the number of spring-run Chinook salmon as a result of fry and juvenile mortality. (Section 4, p. 4.3.7-109)	Specific text from the EIR/S is restated in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	11	Under Alternative 4A, there would be moderate to substantial flow reductions and substantial increases in temperatures and temperature exceedances above thresholds in the Sacramento, Feather, and American Rivers, which would interfere with fall-/late fall-run Chinook salmon spawning and egg incubation. Biological models, including the Reclamation egg mortality model and SacEFT, predict substantially degraded spawning and egg incubation habitat conditions in the Sacramento, Feather, and American Rivers. These modeling results are generally consistent for H3_ELT and H4_ELT. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable spawning habitat and substantially reduce the number of fall-/late fall-run Chinook salmon as a result of egg mortality. (Section 4, p. 4.3.7-155)	Specific text from the EIR/S is restated in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	12	Under Alternative 4A, including climate change effects, there would be persistent moderate flow reductions in the Feather, American, Stanislaus, Mokelumne, and San Joaquin Rivers, which would interfere with fall-/late fall-run Chinook salmon juvenile rearing habitat conditions. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable rearing habitat and substantially reduce the number of fall-/late fall-run Chinook salmon as a result of degraded juvenile rearing conditions. (Section 4, p.	Specific text from the EIR/S is provided. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

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		4.3.7-167) These modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce migration conditions for fall-/late fall-run Chinook salmon upstream of the Delta. Under Alternative 4A, instream flows would be lower in multiple upstream rivers during the fall-run Chinook salmon migration period relative to Existing Conditions, depending on scenario (H3_ELT or H4_ELT). Degraded migration habitat conditions would delay or eliminate successful migration necessary to complete the fall-run Chinook salmon life cycle. However, the impact of Alternative 4A across the operational range (Scenarios 23 H3_ELT and H4_ELT) on through-Delta migration conditions would be small due to generally similar juvenile survival and a minor effect on olfactory cues for adults. (Section 4, p. 4.3.7-192)	
2762	13	Under Alternative 4A, there are flow and cold water pool availability reductions in the Feather, American, and Stanislaus rivers, as well as temperature increases in the Feather and American rivers that would lead to biologically meaningful increases in egg mortality and overall reduced habitat conditions for spawning steelhead and egg incubation, as compared to Existing Conditions. Alternative 4A would not have significant effects on steelhead spawning conditions in the Sacramento River, Clear Creek, San Joaquin River, or the Mokelumne River. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable spawning habitat and substantially reduce the number of steelhead as a result of egg mortality. (Section 4, p. 4.3.7-214)	Specific text from the RDEIR/SDEIS is stated in the comment No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	14	Under Alternative 4A, there are flow reductions in the Feather, American, Stanislaus, San Joaquin, and Mokelumne rivers and temperature increases in the Sacramento, Feather, American, and Stanislaus Rivers that would lead to reductions in quantity and quality of fry and juvenile steelhead rearing habitat relative to Existing Conditions. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce rearing habitat and substantially reduce the number of steelhead as a result of fry and juvenile mortality. (Section 4, p. 4.3.7-229)	Specific text from the RDEIR/SDEIS is provided. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	15	Under Alternative 4A, there would be reductions in flow in the Sacramento, Feather, American, Stanislaus, and Mokelumne rivers that would lead to biologically meaningful reductions in juvenile and adult migration conditions, thereby reducing survival relative to Existing Conditions. Reduced migration conditions would delay or eliminate successful migration necessary to complete the steelhead life cycle. Alternative 4A would not affect migration conditions for steelhead in Clear Creek or the San Joaquin River. Water temperatures under Alternative 4A would generally be similar to those under Existing Conditions in all rivers examined. There would be minimal effects on through-Delta migration conditions because changes in juvenile survival and adult olfactory cues would be small. Contrary to the NEPA conclusion set forth above, modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce migration conditions for steelhead. (Section 4, p. 4.3.7-253)	Specific text from the RDEIR/SDEIS is included in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.

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2762	16	Under Alternative 4A, flows would generally not differ in the Sacramento River. However, flows would be lower under Alternative 4A in the Feather and San Joaquin rivers and water temperature conditions would be degraded in all rivers examined relative to Existing Conditions. Results would generally be consistent between H3 and H4. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable spawning habitat and substantially reduce the number of green sturgeon as a result of elevated exceedances above temperature thresholds. (Section 4, p. 4.3.7-294)	Specific text from the RDEIR/SDEIS is shown in the comment No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	17	Under Alternative 4A, water temperatures would be similar in the Sacramento River, although the exceedance above NMFS temperature thresholds in the Feather River would be higher under Alternative 4A than those under the CEQA baseline, which could increase stress, mortality, and susceptibility to disease for larval and juvenile green sturgeon. These modeling results are consistent among scenarios. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce rearing habitat and substantially reduce the number of green sturgeon as a result of fry and juvenile mortality. (Section 4, p. 4.3.7-298)	Specific text from the RDEIR/SDEIS is stated in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	18	Under Alternative 4A, there would be frequent small to large reductions in flows in the Sacramento and Feather rivers upstream of the Delta that would reduce the ability of all three life stages of green sturgeon to migrate successfully. Exceedance of Delta outflow thresholds would be lower under Alternative 4A's H3_ELT scenario than under Existing Conditions, but would be similar or greater than under Existing Conditions for the H4_ELT scenario. Note that there is high uncertainty that year class strength is due to Delta outflow or if both year class strength and Delta outflows co-vary with another unknown factor. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce upstream migration conditions for green sturgeon. (Section 4, p. 4.3.7-303)	Specific text from the RDEIR/SDEIS is in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	19	Under Alternative 4A, there would be small to moderate, persistent reductions in flows in the Sacramento, Feather, and San Joaquin rivers that would cause biologically meaningful effects to white sturgeon spawning and egg incubation habitat. Further, there would be increases in exceedances of NMFS temperature thresholds in the Sacramento River that would cause a biologically meaningful effect to white sturgeon spawning and egg incubation. Results would generally be consistent between H3_ELT and H4_ELT. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce the quantity and quality of suitable spawning and egg incubation habitat. (Section 4, p. 4.3.7-325)	Specific text from the RDEIR/SDEIS is shown in the comment. No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	20	Under Alternative 4A, the exceedance of flow thresholds in the Sacramento River would be lower than under Existing Conditions. Exceedance of Delta outflow thresholds would be lower under Alternative 4A's H3_ELT scenario than under Existing Conditions, but would be similar or greater than under Existing Conditions for the H4_ELT scenario, although there is high uncertainty that year class strength is due to Delta outflow or if both year class strength and Delta outflows are co-varying with another unknown factor. Juvenile migration flows in the Sacramento River at Verona	Please refer to Response 19 above.

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		would be up to 31% lower in six (for H3_ELT) or seven (for H4_ELT) of 12 months relative to Existing Conditions. These reduced flows would have a substantial effect on the ability to migrate downstream, delaying or slowing rates of successful migration downstream and increasing the risk of mortality. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce migration conditions for white sturgeon. (Section 4, p. 4.3.7-326)	
2762	21	Modeling results indicate that the impacts to Pacific lamprey spawning and egg incubation conditions would be less than significant. There would be no increases in exposure to redd dewatering that would affect more than 5 percent of the population in all rivers. Temperature exposure in the American River at the Sacramento River confluence would affect 15 percent more cohorts under H3_ELT, but there would be no other differences that would have a biologically meaningful effect to Pacific lamprey in any of the other 9 locations evaluated. Therefore, the impact is less than significant and no mitigation is required. (Section 4, p. 4.3.7-336)	Please refer to Response 19 above.
2762	22	Under Alternative 4A, the risk of redd dewatering would increase to some degree under some flow reductions in the Sacramento and Trinity rivers, and substantially in the American River at Nimbus Dam (increases from 34% to 238%). Flow reductions would increase the risk of ammocoete stranding and desiccation in these rivers. There would be a beneficial effect from decreased occurrence of flow reduction events (=reduced ammocoete stranding risk) in the Feather River (-8 19% to -64% for the 85% and 90% flow reduction categories) but this effect would not offset the more substantial reductions in the other locations. There would be an increase in exposure to critical water temperatures in most locations examined. Increased exposure to higher water temperatures would increase stress and mortality of ammocoetes. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce rearing habitat and substantially reduce the number of Pacific lamprey as a result of fry and juvenile mortality. (Section 4, p. 4.3.7-343)	Please refer to Response 19 above.
2762	23	Modeling results indicate that the effect [on lamprey] is less than significant because it would not substantially reduce or degrade migration habitat or substantially reduce the number of fish as a result of mortality. There would be small to moderate negative effects of Alternative 4A on lamprey migration flows in the Sacramento River at Rio Vista, no effect (under H3_ELT) or moderately large benefits (under H4_ELT) in the Feather River, and no effect in the Sacramento River at Red Bluff and in the American River. Combined, these effects would not have a population level effect on Pacific lamprey. Therefore, the impact is less than significant and no mitigation is required. (Section 4, p. 4.3.7-348)	Please refer to Response 19 above.
2762	24	Under Alternative 4A, there would be moderate to substantial persistent increases in occurrence of flow reduction events for Alternative 4A with respect to Existing Conditions for the Trinity River (up 17 to 49%) and the American River at Nimbus Dam (up to 292%) and at the confluence with the Sacramento River (up to 270%) that would increase river lamprey ammocoete stranding risk and therefore rearing success for these locations. There would be a beneficial effect from reduced occurrence of flow reductions in the Feather River (up to 61% reduction) but this effect would not be	Please refer to Response 19 above.

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		sufficient to offset the negative effects from increased occurrence of flow reductions at the other locations. Further, stranding risk under H4_ELT in the Feather River would be higher than those under H3_ELT, such that the benefits under H3_ELT would not occur under these H4_ELT. There would also be increases under Alternative 4A in ammocoete cohort exposure to critical water temperatures in the Feather and American rivers that would have effects on rearing success through ammocoete mortality. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce rearing habitat and substantially reduce the number of river lamprey as a result of fry and juvenile mortality. (Section 4, p. 4.3.7-364)	
2762	25	Under Alternative 4A, there would be moderate and persistent flow reductions for substantial portions of the river lamprey macropthalmia migration period in the American River, and less persistent and smaller magnitude flow reductions in the Sacramento River and Feather River. These flow reductions would affect juvenile migration success, increase straying, and delay access to the ocean. If in fact, lamprey use these cues to find natal spawning grounds, these flow reductions may also affect adult migration success, including a reduction in the ability for adults to sense olfactory cues. There would be beneficial effects from increases in flow for some months and water year types in each location. However, this effect would not be sufficient to offset the negative effects of flow reductions for the remainder of the migration period and/or in other water year types, particularly drier water year types when effects of flow reductions would be more critical. Flows under H4_ELT would be less favorable than those under H3_ELT. Contrary to the NEPA conclusion set forth above, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce migration conditions for river lamprey. (Section 4, p. 4.3.7-367)	Please refer to Response 19 above.
2762	26	Collectively, flows would be lower under Alternative 4A during the adult largemouth bass residency period relative to Existing Conditions. Flows would be persistently and moderately to substantially lower in several rivers during substantial portions of the period. Therefore, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce the quantity and quality of habitat for adults as a result of flow reductions. (Section 4, p. 4.3.7-416)	Please refer to Response 19 above.
2762	27	Collectively, flows would be lower under Alternative 4A during the juvenile and adult Sacramento tule perch occurrence period relative to Existing Conditions. Flows would be persistently and moderately to substantially lower in several rivers during substantial portions of the period. Therefore, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce suitable rearing habitat as a result of flow reductions. (Section 4, p. 4.3.7-423)	Please refer to Response 19 above.
2762	28	Collectively, flows would be lower under Alternative 4A during the year-round juvenile and adult Sacramento-San Joaquin roach occurrence period relative to Existing Conditions. Flows would be persistently and moderately to substantially lower in several rivers during substantial portions of the rearing period. Therefore, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce	Please refer to Response 19 above.

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		suitable rearing habitat as a result of flow reductions. (Section 4, p. 4.3.7-430)	
2762	29	Collectively, flows would be lower under Alternative 4A during the juvenile and adult hardhead occurrence period relative to Existing Conditions. Flows would be persistently and moderately to substantially lower in several rivers during substantial portions of the rearing period. Therefore, these modeling results indicate that the difference between Existing Conditions and Alternative 4A could be significant because the alternative could substantially reduce habitat for juvenile and adult hardhead as a result of flow reductions. (Section 4, p. 4.3.7-436)	Please refer to Response 19 above.
2762	30	[Page] 4.1-5 [Line] 12: The Project Description includes new construction and operations of the new conveyance and modified operations of existing facilities. Consistent with discussions in the Section 7 process and 2081(b) permit applications, there are also existing facilities, such as Suisun Marsh facilities, fish salvage operations, and the existing North Bay Aqueduct facility, with ongoing operations that are a part of the overall operations. Please add a description of existing facilities operations here for consistency with the Section 7 process and 2081(b) permit application.	For purposes of the EIR/EIS analyses Alternatives 4A, 2D and 5A assume operations of existing facilities will continue, but these existing facilities are not components of these proposed alternatives. Operations are for these facilities are included in the CALSIM II/DSM2 modeling and SWP/CVP export facilities are described in Section 3.6.1.9 of this Final EIR/EIS.
2762	31	[Page] 4.1-16 [Line] 10: Please revise to make it clear that this description is in "Section 3.4.4, CM4 Tidal Wetland Restoration" of Appendix D.	This text has been revised in the Final EIR/EIS. See Chapter 3, Section 3.6.3, Environmental Commitments.
2762	32	[Page] 4.1-18 [Line] 16: This section title, Collaborative Science and Adaptive Management Program (or CSAMP), is confusing to the reader in that the text here and in the Collaborative Science section below is suggesting a new program that builds off of an existing program with the same name (CSAMP). We [CDFW] suggest renaming this section "Collaborative Science, Monitoring, and Adaptive Management" and further clarifying in the text how the new program will either continue the CSAMP/CAMT efforts or absorb them.	The commenter makes a suggestion about Section nomenclature but does not raise an issue related to the adequacy of the environmental analysis in the BDCP EIR/EIS or the RDEIR/SDEIS.
2762	33	[Page] 4.1-18 [Line] 21: AMMP does not seem like the appropriate acronym [for Collaborative Science and Adaptive Management Program]. Please revise to be consistent with the title.	AMMP is an abbreviation for Adaptive Management and Monitoring Program. This has been clarified in Chapter 3 of the Final EIR/EIS, Description of Alternatives, Section 3.2.3.3, of the Final EIR/EIS.
2762	34	[Page] 4.1-20 [Line] 27: The funding and MOA [memorandum of agreement] section could use additional clarification regarding the assurances of funding, especially as it relates to compliance and effectiveness monitoring vs. adaptive management monitoring. Specifically, the "when feasible" statement is problematic, since it provides no commitment to this process or clarification of how the agencies will be supported to participate in this process. E.g., the language above implies that monitoring and studies are needed so that the Collaborative Science program can inform intake design and construction of the screens. However, these actions should be taken as part of implementation,	Commitments to adaptive management and collaborative science will be secured through a MOA between DWR, Reclamation, the public water agencies, CDFW, NMFS, and USFWS. Details of the collaborative science and adaptive management process, including adaptive management decision-making, an organizational structure for adaptive management decisions, and funding for collaborative science will be developed and incorporated through the MOA, as needed.

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		compliance, and effectiveness monitoring requirements and will most likely need to begin prior to an adaptive management program being developed.	
2762	35	Section 4.1.2.4 states that "the proposed compliance and effectiveness monitoring program for the CESA [California Endangered Species Act] 2081b permit is described in Chapter 6 of that permit application". However, that information is not available for review as part of this EIR/EIS.	Though true that Chapter 6 of the 2081b permit application is not available, information on compliance and effectiveness monitoring is available in BDCP Chapter 3, Conservation Strategy, Section 3.4.22 and in Final EIR/EIS Appendix 11F, Substantive BDCP Revisions.
2762	36	[Page] 4.1-20 [Line] 39-41: The use of the phrase "the parties above" implies that CDFW will ensure availability of funding for monitoring associated with 2081(b) requirements. Please note that a condition of approval for an incidental take permit is that applicant has ensured adequate funding to meet their commitments under a 2081 permit.	Comment noted. Funding for monitoring will be provided by the participating state and federal water contractors, not CDFW. DWR understands that for CDFW to approve the 2081(b) incidental take permit they must find that adequate funding will be provided for monitoring. DWR will be documenting adequate funding in their 2081(b) permit application to CDFW.
2762	37	[Page] 4.1-37 [Line] 32-34: This states that the environmental commitments (ECs) and resource restoration and protection principles (RRPPs) are considered part of Alternative 4A, and not defined as mitigation measures (MMs). However, the analyses for many species reference RRPP requirements in order to meet proposed CEQA/NEPA mitigation in the absence of a proposed MM. Though RRPPs aren't defined as MMs for CEQA/NEPA compliance, they are treated as such in the species' impacts analyses. For example, the valley elderberry longhorn beetle (VELB) analysis states, "The acres of riparian protection and restoration proposed would satisfy the typical mitigation requirements described in the previous paragraph." Another consequence of the approach is that it makes it unclear and difficult to assess whether all impacts are ensured to be less than significant. [There is a] conflict between the assumption that certain Ecs will address impacts to multiple species, and species-specific habitat requirements that are not met by the related EC. This approach is left over from the BDCP, where the reserve system provided a very large buffer above minimum mitigation requirements. It would be much clearer if the EIR described the impact to a particular species and identified the appropriate level of mitigation for that impact, conditioned to meet the needs of that species, as an MM. It is possible that one mitigation area could meet the habitat requirements of multiple species and therefore satisfy multiple mitigation measures, but that may not always be true.	For more information on the adequacy of terrestrial mitigation please see Master Response 17 and Master Response 22. Please see response to comment 2762-6 for information on how the EIR/EIS addresses the needs of multiple species from proposed natural community conservation.
2762	38	[Page] 4.1-39: Table 4.1.8 -- VELB1: This objective has been carried over from the BDCP and does not quantify a number of acres out of 354 acres provided by ECs [environmental commitments] 3 and 7 that are required to mitigate for impacts to VELB [valley elderberry longhorn beetle]. We [CDFW] suggest updating this RRPP [resource restoration and protection principle] to ensure mitigation needs for the species are met, because VELB may have unique requirements that do not overlap with other riparian species. For example, 100 of the 251 acres restored will be mature forest for WYBC [Western yellow-billed cuckoo] (VFR2) that may not contain elements necessary for VELB's use. Other riparian species' commitments (such as 19 acres for RBR [riparian brush rabbit]) may also not include elements necessary for VELB. Therefore, we suggest revising VELB1 to state that at least 78 acres restored by EC7 and 78 acres	True, the Resource Restoration and Protection Principles VELB1 and VELB2 do not specify an acreage of riparian dedicated to VELB; however, the measures explicitly commit to mitigating according to the USFWS guidelines so there is a commitment to meet the species needs regardless. Furthermore, Environmental Commitment 7 is guided by the content in Conservation Measure 7 of the Draft BDCP, which specifically states that restoration projects will incorporate elderberry shrubs in their planting schemes. An exact acreage needed to meet the USFWS guidelines is not known at this time because there is no information on the number, stem size class, and presence of exit holes in stems that would be impacted and the 72 acres of impacted modeled riparian habitat is likely an over estimate of occupied habitat.

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		protected by EC3 have the elements described in VELB1 and VELB2.	
2762	39	[Page] 4.1-41: Table 4.1.8-SHWA SH1: We suggest updating this RRPP [resource restoration and protection principle] to ensure that the mitigation needs for this species are met with specific acreage requirements based on anticipated impacts.	The resource restoration and protection principles are intended to establish performance standards to reduce effects on Swainson's Hawk foraging habitat at restoration and protection locations when they are identified. The acreages for restoration and protection are summarized in Table 12-ES-2A and a summary of the relevant conservation measures is presented in the analysis in Chapter 12. The exact conservation acreages are not known at this time because the impacts that may result from restoration activities are estimates.
2762	40	[Page] 4.3.4-34 [Line] 29-34: It is unclear how the evaluation can conclude that the project will not substantially increase health risks to fish, when the analysis did not evaluate the risk. Appendix 8I states that the benchmark used to evaluate mercury risks in fish tissue were from the Delta Methylmercury TMDL [total maximum daily load] (0.24 ppm [parts per million] in 350 mm LMB [largemouth bass]). However, that fish tissue target was developed for the protection of human health, and not fish health. The TMDL did not develop fish tissue targets to protect the most sensitive life stages of fish to methylmercury toxicity (e.g., reproductive and early-life stages). The most recent science has estimated that less than 0.02 ppm [parts per million] methylmercury in reproductive tissues and early-life stage fish is necessary to protect from adverse effects. The current evaluation should include an assessment of impacts using this benchmark or equivalent.	Please refer to Master Responses 14 regarding water quality and mercury.
2762	41	[Page] 4.3.4-34 [Line] 35-40: The State Water Board's Statewide Mercury Control Program for Reservoirs has determined that the magnitude of reservoir level fluctuations has been found to be positively correlated to reservoir fish tissue methylmercury concentrations (SWRCB 2015). If the project operations result in increasing the fluctuations of upstream reservoirs through re-operations, etc., then the project may impact reservoir fish methylmercury concentrations. The current environmental evaluation has not assessed this impact.	The modeling conducted for the SWP and CVP reservoirs using CALSIM II was conducted on a monthly time-step. At this time-step, the modeling results do not indicate that the project alternatives would necessarily change reservoir fluctuations so that there would more or less fluctuations, and thus whether conditions with the project alternatives would promote increased methyl mercury, relative to Existing Conditions or No Action Alternative conditions. It is noted that actions under the Statewide Mercury Control Program for Reservoirs, as described in the June 2016 Fact Sheet are not concerned with controlling reservoir fluctuations; rather the focus is on managing water chemistry and fisheries composition.
2762	42	[Page] 4.3.4-54: Both NEPA Effects and CEQA Conclusions conclude that the project will result in no adverse impacts; however, the project is estimated to increase sturgeon (green sturgeon is ESA-listed) selenium concentrations to levels that will cause injury. This would be an exceedance of the Sacramento-San Joaquin River Basin Plan toxicity narrative objective because selenium would be present in concentrations that produce detrimental physiological responses in aquatic life. Furthermore, Linares-Casenave et al. (2014) suggests that sturgeon in the Bay-Delta could currently be at risk from selenium toxicity. The project would exacerbate toxicity to organisms that feed from the benthic food web.	Please refer to Master Responses 14 regarding selenium.
2762	43	In general, CEQA analyses of proposed ECs [environmental commitments] do not consider differences in the habitat requirements of species which utilize the same natural communities. For example, EC 7 commits to riparian habitat restoration and protection. EC 7 is expected to offset impacts to a wide variety of special-status species including least Bell's vireo, riparian brush rabbit, and special-status bat species. Although these three species use riparian habitat, their habitat requirements are different and not complimentary. Least Bell's vireo and riparian brush rabbit require	As discussed in Chapter 3, Section 3.6.3, Environmental Commitments, the Environmental Commitments would be implemented in the same manner as described in the corresponding Conservation Measures in the BDCP. For example, Conservation Measure 7 includes siting and design considerations to meet the needs of multiple species, including riparian brush rabbit, valley elderberry longhorn beetle, and Swainson's hawk. CM 7 also includes guidance for creating structural diversity and structural heterogeneity, early to mid-successional vegetation, and late successional vegetation. Furthermore, Alternative 4A also includes specific Resource Restoration and Protection Principles (see Table 3-7 in Chapter 3 of the EIR/EIS), which

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		early successional shrubby riparian vegetation. Special-status bat species require mature riparian habitat with large, established roost trees. As a result of these disparate habitat requirements, it is not appropriate to credit all of the proposed riparian habitat restoration and conservation as a benefit to all three species. However, refining the estimated acres of riparian habitat (in this example) to reflect the proportion of EC 7 that would meet the specific requirements of each species would mean that CEQA mitigation ratios proposed in the document would not be met.	carry forward many of the biological goals and objectives for natural communities and species identified in the BDCP. The resource restoration and protection principles include VFR1, to restore, maintain, and enhance riparian areas to provide a mix of early-, mid-, and late-successional riparian habitat (a benefit to tree roosting bats) with a well-developed understory of dense shrubs (a benefit to least Bell's vireo); VFR2 a measure to maintain a single contiguous patch of 100 acres of mature riparian forest (benefiting bats); VELB1 and VELB2, specific guidance for replacing elderberry shrubs; and RBR1 – RBR5, which includes specific guidance for restoring and protecting habitat for riparian brush rabbit including specific acreages. The analyses for each of the species discussed in the comment, do in fact refer to these specific measures to demonstrate how the effects would be offset. The analyses do present the total riparian habitat to be protected and restored but also refers to the specific guidance to achieve the needs of each species. The total riparian conservation proposed (100 acres of protection and 251 acres of restoration) was not chosen to only offset the amount of riparian natural community affected (48 acres permanent and 24 acres temporary) but also to meet the needs of several species.
2762	44	[Page] 4.3.8-63 [Line] 25-35: We [CDFW] suggest discussing potential impacts from recreation when describing EC 11. Although AMM37 (Recreation) is included in the discussion of Alternative 4A offsets to impacts (page 65, line 8), potential impacts from recreation should be discussed because vernal pool habitat is sensitive to human intrusion.	Alternative 4A has been revised and no longer includes a recreation component for conservation areas. No change to the EIR/EIS is required.
2762	45	[Page] 4.3.8-65 [Line] 23: AMMs [avoidance and minimization measures] listed below in the text minimize or avoid direct mortality. We [CDFW] suggest referencing these AMMs again in this sentence, in addition to habitat protection.	This section of the Final EIR/EIS has been modified.
2762	46	[Page] 4.3.8-65 [Line] 34-42: There is no discussion of the AMMs [avoidance and minimization measures] that will offset these effects, and there is no discussion of impacts as a result of O&M [operations and maintenance] after construction. We [CDFW] suggest discussing AMMs and O&M here to be consistent with the CEQA conclusion.	Text has been modified to include a discussion of AMMs and operations and maintenance activities.
2762	47	[Page] 4.3.8-66 [Line] 27: "Planting shrubs in a high-density cluster" is too vague and inconsistent with the USFWS 1999 guidelines. Specify, per the guidelines: The planting area will be at least 1,800 square feet for each elderberry transplant, with as many as 5 additional plantings and up to 5 associated native species plantings within that same area.	The overall commitment is to follow the USFWS Guidelines, which means following the recommended plantings within a 1,800 square foot area. The reference to high density cluster comes from BDCP Objective VELB1.1. The intent of this objective is to increase opportunities for colonization and dispersal. Valley elderberry longhorn beetle is more likely to occupy elderberry shrubs that occur in higher densities rather than isolated shrubs, and shrub density is an important factor influencing beetle occupancy (Collinge et al. 2001). The density would not exceed that recommended in the Guidelines.
2762	48	[Page] 4.3.8-66 [Line] 32: Assuming EC 3 is the same as CM3 (BDCP public draft), there are no acreage commitments for protecting valley elderberry longhorn beetle (VELB) habitat specifically. As a result, EC 3 does not contribute to meeting mitigation requirements and reducing impacts to VELB. The 103 acres of protected riparian habitat will be designed for other riparian species requirements that are not elderberry shrub obligates.	The protection and management of riparian habitat would benefit VELB if elderberry shrubs are present and would allow for the future establishment of elderberry shrubs and the expansion of VELB. However, the protection of riparian habitat is not the sole basis for making the determination that the proposed measures would sufficiently offset the effects but rather demonstrates a measure that would contribute to offsetting the effects. Resource Restoration and Protection Principles VELB1 and VELB2 do not specify an acreage of riparian dedicated to VELB; however, the measures explicitly commit to mitigating according to the USFWS guidelines so there is a commitment to meet the species needs regardless of the proposed riparian

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			protection and restoration acreages.
2762	49	[Page] 4.3.8-67 [Line] 8-10: Please either correct the habitat model, or base mitigation on the estimate provided by the habitat model.	The commenter asks that the model be refined or the mitigation be based on the estimate provided in the analysis. The model can't be refined any further at this scale. The habitat that valley elderberry longhorn beetle occupies is individual shrubs. The habitat model is a conservative estimate (i.e., an overestimate) of the actual habitat and therefore the effects analysis is not underestimating the effect on the species. AMM15 provides for surveys for elderberry shrubs according to the USFWS protocol. Actual conservation will be conducted according to these guidelines.
2762	50	[Page] 4.3.8-67 [Line] 10-12: Conveyance facilities are not environmental commitments. Adjust terminology to indicate project impacts that result in these losses are water conveyance, transmission, and RTM [reusable tunnel material], and EC 4.	This text has been corrected for the Final EIR/EIS.
2762	51	[Page] 4.3.8-67 [Line] 2, 6-7: Impact numbers do not agree with those presented in the draft BA [Biological Assessment].	The analysis is the EIR/EIS is based on the original modeled habitat used for the BDCP. The analysis being done in the Biological Assessment is taking a different approach and is being conducted independent of the EIR/EIS. The impact analysis, as noted in this section, provides a conservative estimate of impacts and AMM15 provides for surveys for elderberry shrubs according to the USFWS protocol. Actual conservation will be conducted according to these guidelines.
2762	52	[Page] 4.3.8-69 [Line] 1-10, 41: VELB [valley elderberry longhorn beetle] would need 78 acres of valley foothill riparian protected and 78 acres of valley foothill riparian restored according to the requirements outlined in the U.S. Fish and Wildlife Service conservation guidelines to meet proposed CEQA mitigation ratios described on page 4.3.8-68. It is not clear how much restored and protected valley foothill riparian habitat will be available to meet the specific habitat requirements of VELB and the proposed mitigation ratios. As a result, we [CDFW] cannot determine how the CEQA conclusion is supported by the available analysis and information. Please add details describing how proposed mitigation would meet VELB requirements.	As stated in the analysis, a total of 251 acres of riparian habitat will be restored/created and 103 acres protected. The impacts to modeled riparian habitat consist of 72 acres of impact. Environmental Commitment 7 specifically calls for the planting of elderberry shrubs in large, contiguous clusters with a mosaic of associated natives as part of riparian restoration consistent with USFWS (1999) conservation guidelines. Elderberry plantings are built into the Environmental Commitment guidance (see Conservation Measure 7 in BDCP) and Resource Restoration and Performance Principle VELB1 specifically requires mitigation to be conducted according to USFWS guidelines. The analysis does not state that the USFWS guidelines require 78 acres (the new riparian impact total) of protection and 78 acres or restoration. The USFWS guidelines provides specific guidance for conservation based on stem counts, size, and the number of shrubs to be transplanted, none of which are available at this time. The acreages proposed are likely sufficient to accommodate the required mitigation but even if they are not the commitment in Resource Restoration and Performance Principle VELB1 is to follow the guidelines, which means that the mitigation would be satisfied regardless.
2762	53	[Page] 4.3.8-69 [Line] 41-44: The CEQA conclusion should not assume that protection and restoration of habitat is greater than proposed mitigation ratios unless this exceedance is quantified in RRPP [resource restoration and protection principle] VELB1.	As part of the planning and environmental assessment process, the project proponents will incorporate 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 project proponents will implement these environmental commitments as part of the project construction activities. In other words, these commitments will be satisfied even if not separately imposed by the permitting agencies. If permitting agencies impose additional measures or modifications, those will also be adhered to as part of the permit(s). The Lead Agencies will coordinate planning, engineering, design and construction, operation, and maintenance phases of the alternative with the appropriate agencies. For more information regarding Environmental Commitments please see Appendix 3B of the RDEIR/SDEIS. On the same referenced page that is included in the comment, the EIR/S substantiated the rationale for the CEQA conclusion based upon following these Avoidance and Minimization Measures: 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, and AMM15 Valley

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			Elderberry Longhorn Beetle. AMM15 requires surveys for elderberry shrubs within 100 feet of any ground disturbing activities, the implementation of avoidance and minimize measures for any shrubs that are identified within this 100-foot buffer, and transplanting shrubs that can't be avoided. All of these AMMs include elements that avoid or minimize the risk of affecting habitats and species adjacent to work areas and RTM storage sites. Other factors relevant to effects on valley elderberry longhorn beetle include: • Habitat loss is widely dispersed throughout the study area and would not be concentrated in any one location. • There would be a temporal loss of riparian habitat, which is expected to result in a minimal effect on valley elderberry longhorn beetle because much of the riparian habitat in the project area is not known to be currently occupied by the species, because all elderberry shrubs that are suitable for transplantation would be moved to conservation areas in the project area, and because most of the affected community is composed of small patches of riparian scrub and herbaceous vegetation that are fragmented and distributed across the agricultural landscape of the project area and thus are likely to provide no or low-value habitat for the beetle. • Temporarily disturbed areas would be restored within 1 year following completion of construction and management activities. Under AMM10, a restoration and monitoring plan would be developed prior to initiating any construction-related activities associated with the environmental commitments or other covered activities that would result in temporary effects on natural communities.
2762	54	[Page] 4.3.8-76 [Line] 30-43: Riparian conservation and restoration is unlikely to benefit these species because it is primarily designed to accommodate other riparian species requirements. Because sand bars and sand dune habitat would be incompatible with most riparian special status species requirements (ex. RBR [riparian brush rabbit], LBV [least Bell's vireo], and WYBC [western yellow-billed cuckoo]), it is unlikely that proposed mitigation will benefit anthicid beetles.	Riparian protection and restoration, especially when implemented with channel margin enhancement, will conceivably contribute to the formation of sand bars along channels in the Delta by increasing the diversity in the channel edge through the channel margin enhancement itself, the increase in woody debris, and the increase in exposed roots along channel margins, all of which contribute to natural river processes, which include the deposition of sand and formation of sand bars. The analysis does not state that sand dunes would form as a result of these activities.
2762	55	[Page] 4.3.8-78 [Line] 25-33: Nothing is known about the ability of either anthicid species to successfully disperse and establish in vacant available habitat. Additionally, the upstream abundance and distribution of the Sacramento anthicid beetle is essentially unknown. Given the combination of uncertain (at best) benefits from the project on these species and the strong likelihood of project impacts on known occurrences, we [CDFW] cannot determine how the CEQA conclusion of "less-than-significant" is supported by the information available. Please revise this section.	The commenter notes that nothing is known about the ability of Sacramento and Antioch Dunes anthicid beetles to disperse and establish in vacant available habitat. The impacts to anthicid beetles represent potential impacts and are not necessarily a "strong likelihood" since the exact location of the proposed tidal restoration under Alternative 4A are not known at this time. Records for these species are just east of Rio Vista, near Decker Island, and on Brannan Island. The current areas being considered for tidal restoration do not include these locations so impacts to these locations are not likely. The current conditions along most of the leveed channels are not conducive to the formation of sandbars; however, the channel margin enhancement and planting of riparian along the Delta river channels through creating low floodplain benches and increased vegetation and woody debris along the channel margin will create conditions that would facilitate the deposition of fines and the establishment of sandbars. Tidal restoration activities will be subject to separate environmental review and permitting, and would address specific effects to anthicid beetles. The less than significant determination for Alternative 4A in the EIR/EIS is appropriate considering that conditions in the Delta for anthicid beetles will likely improve with riparian restoration and channel margin enhancement as currently written under Alternative 4A in the EIR/EIS.

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2762	56	[Page] 4.3.8-78 [Line] 43-44: There is no RRPP [resource restoration and protection principle] committing to protect grassland in CZ1. Alt 4A protects substantially fewer acres of grassland than the BDCP to mitigate for effects on other grassland-dependent species, mostly in CZs 7 and 8. For example, RRPP G10 protects 647 acres of grassland near Byron Hills, and 227 acres are committed to riparian brush rabbit (RBR5), leaving less than 200 acres that may be protected in CZ1. Vernal pool (VP) complex protection would benefit this species more than grassland. Most of the RRPPs for VP complex are intended to be conducted near Byron, and do not include the Jepson Prairie VP Core Area (see USFWS vernal pool recovery plan, Figure III-13c).	True, there is no RRPP designating grassland protection in CZ1; however, the intent here is to identify a potential impact that could occur if grassland protection does take place in Delta green ground beetle habitat. Though there could be a long term benefit with the protection there could also be an impact management activities are not compatible.
2762	57	[Page] 4.3.8-79 [Line] 12-14: If grassland or VP [vernal pool] complex restoration occurs in CZ1 it could impact Delta green ground beetle. Because specific locations are not stated in the RRPPs [resource restoration and protection principles] or Section 4.1.2.3, we [CDFW] suggest including additional discussion here regarding potential impacts of grassland or VP complex restoration projects to the species.	Grassland restoration will occur on cultivated lands, which was quantified as such for the analysis, and would thus not impact the species. Conservation Measure 9 from the Draft BDCP would guide the vernal complex restoration identified in Environmental Commitment 9. As noted on page 3.4-74 of the Draft BDCP, "Conservation Zone 1 contains lands that were historically vernal pool complexes that have since been highly degraded, but which are suitable for vernal pool restoration", which indicates target areas would likely be areas that are highly degraded and thus not likely suitable for Delta green ground beetle. Restoration would not take place in areas already suitable for vernal pool species. Because the species has been found several hundred meters away from vernal pool habitat, vernal pool restoration will be identified as potential impact to the species and the mitigation measure modified to include preconstruction surveys for this activity if it occurs within the species range.
2762	58	[Page] 4.3.8-79 [Line] 36-38: Here the assumption is made that protection of grasslands will occur in CZ1, though that siting commitment is not specified in Alternative 4A.	The analysis for effects on Delta green ground beetle does not assume that grassland projection would occur in CZ1 but rather that it is possible. Under Environmental Commitment 3, grassland protection is possible in CZ1. General guidance for Environmental Commitments, as outlined in the discussion of Alternative 4A in Chapter 3, is provided in the original BDCP Conservation Measures, which does list Conservation Zones where actions may occur.
2762	59	[Page] 4.3.8-79 [Line] 6-7: We [CDFW] suggest including EC 8 as a potential impact.	The lines identified by the commenter are a table title and it is unclear what the suggested change refers to. No changes have been made related to this comment.
2762	60	[Page] 4.3.8-80 [Line] 11-14, 32-35: Include restoration of grassland and VP [vernal pool] complex as potential impacts unless it is specified in Alt 4A that they will not occur in CZ1. We [CDFW] suggest characterizing potential impacts as a result of ECs 3 and 11, unless it is specified in Alt 4A that protection of grassland will occur in CZ1.	Grassland restoration will take place in cultivated lands and not areas potentially suitable for delta green ground beetle. Text changed to include EC 9.
2762	61	[Page] 4.3.8-80 [Line] 43: Lands adjacent to Calhoun Cut and the west side of Lindsey Slough are within the [Delta green ground beetle] species range according to this impact analysis and CNDDB [California Natural Diversity Database] occurrence data.	The commenter states that "Lands adjacent to Calhoun Cut and the west side of Lindsey Slough are within the [Delta green ground beetle] species range according to this impact analysis and CNDDB [California Natural Diversity Database] occurrence data."; however, the section cited does not contest this conclusion. The discussion of the species range in the preceding discussion is in line with this statement.
2762	62	[Page] 4.3.8-81 [Line] 20: Potrero Hills is not mapped as suitable habitat in Figure 12-12. It is also not included in	The area of potential habitat in Potrero Hills, grassland on hill tops, was added to Figure 12-12. The commenter is correct that there are no populations as yet identified in Potrero Hills; however, as stated in the discussion, suitable habitat has been identified in this areas during previous studies and the intent of its

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		the two populations recognized by USFWS (2009) or CNDDB [California Natural Diversity Database].	inclusion is to ensure that if any as yet identified populations are found that effects can be avoided and minimized.
2762	63	[Page] 4.3.8-81 [Line] 22-26: It is not specified in Alt 4A where grasslands will be restored. Unless specified in an RRPP [resource restoration and protection principle] or in Section 4.1.2.3 as not occurring in the Cordelia Hills/western edge of the project area, we [CDFW] suggest analyzing this restoration as a potential impact.	Environmental Commitment 8 is guided by Conservation Measure 8 in the Draft BDCP, which states that grassland restoration will occur in nongrassland areas such as ruderal and cultivated lands. The impact analysis for all of the alternatives assumes grassland restoration would result in the conversion of cultivated lands, which would be unsuitable habitat for callippe silverspot.
2762	64	[Page] 4.3.8-81 [Line] 35-36: We [CDFW] suggest including EC 8 as a potential unknown impact, unless otherwise specified.	Environmental Commitment 8 Grassland Restoration will not occur in areas of potential callippe silverspot habitat, that restoration is planned on the fringe of the Delta not on hill tops where callippe habitat occurs. No change will be made in response to this comment.
2762	65	[Page] 4.3.8-83 [Line] 3-23: Include site-specific management plans and restoration plans that would protect larval host plants and nectar sources. It should be clear that these plants will be protected and avoided during grassland restoration and management activities.	The commenter asks that site-specific management plans include protections for the larval host plants and nectar sources for callippe silverspot. Mitigation Measure BIO-43 does include a measure to protect and manage for larval host plants and nectar sources if callippe silverspot is detected on grassland reserved in the Cordelia Hills and/or Potrero Hills.
2762	66	[Page] 4.3.8-107 [Line] 27-28: Include EC 9 in the bulleted list of benefits to special status reptiles.	Added EC 9, the text was there but not the reference to this EC. Only added to Alternative 4A.
2762	67	[Page] 4.3.8-107 [Line] 6-7: California horned lizard (Phrynosoma coronatum frontale), later changed to Blainsville's horned lizard (P. blainvillii), will occupy clearings in riparian woodlands (Jennings and Hayes 1994). We [CDFW] suggest analyzing riparian restoration as a potential impact. Riparian ECs [environmental commitments] would not benefit the species, because the structure and location of protected/restored riparian habitat is targeted to other species needs and, as a result, would not be compatible with special status reptile requirements.	Riparian restoration would not take place in existing riparian habitat. For Alternative 4A, these areas would be associated with tidal restoration, which would primarily displace cultivated lands, and channel margin enhancement, which would be on banks currently not supporting riparian vegetation.
2762	68	[Page] 4.3.8-107 [Line] 18-29: P. blainvillii [Blainville's horned lizard] uses small mammal burrows and is associated with native perennial vegetation, such as Sueda fruticosa and Atriplex polycarpa (Jennings and Hayes 1994). We [CDFW] suggest also including RRPPs [resource restoration and protection principles] VP/AW1, VP/AW3, VP/AW5, VP/AW6, VP/AW7, G4, G5, and G6. These would also benefit the San Joaquin coachwhip.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	69	[Page] 4.3.8-107 [Line] 11-12: Historic museum records show P. blainvillii [Blainville's horned lizard] occurrences could have been extirpated within the study area (Jennings and Hayes 1994). This should be mentioned here, with reference to MM BIO-55 in lines 30-32.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	70	[Page] 4.3.8-108 [Line] 12-13: This sentence states there would be a permanent effect on the San Joaquin coachwhip resulting from water conveyance facilities in CZ4. However, the model for these	Revised sentence for all Alternatives to clarify, as follows: "For purposes of this analysis, the acres of total effect are considered the same for both San Joaquin coachwhip and Blainville's horned lizard, even though this would result in slightly more acres of permanent effect on the San Joaquin coachwhip resulting from

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		species (Figure 12-17) and the description on page 107 indicate that the Blainville horned lizard has potential habitat in CZ 4, not the San Joaquin coachwhip. Please revise this sentence.	water conveyance facilities activities in CZ 4 where it does not occur."
2762	71	[Page] 4.3.8-109, 110 [Line] 3, 8-21: When analyzing impacts of Alt 4A, it would be appropriate to remove "noncovered" and "covered" species terminology. This is a global comment.	Covered and noncovered language has been removed from the analysis for Alternative 4A.
2762	72	[Page] 4.3.8-109 [Line] 5: Explain why O&M [operations and maintenance] is expected to have little to no adverse effect; i.e., because these species are not expected to occur in the area affected by O&M. Periodic effects would occur, if present.	The species are generally unlikely to occur in these areas after facilities are constructed; however, the potential for their occupancy remains. The discussion currently acknowledges this and includes Mitigation Measure BIO-55 to avoid and minimize any impacts.
2762	73	[Page] 4.3.8-109 [Line] 13-17: The risk of crushing P. blainvillii [Blainville's horned lizard] would not necessarily be lower during the active season, because the species uses crypsis to hide from predators and would be hard to spot from a moving vehicle. Seasonal risk reduction may be more appropriate for the coachwhip, but the risk of crushing the horned lizard during the active season should be discussed. BIO-55 and AMMs [avoidance and minimization measures] would minimize vehicle strike impacts more than operating during the active season. We [CDFW] also suggest noting that these reptiles would not be active under conditions of extreme temperatures and could be taking cover in burrows or crevices or under structures such as rocks or logs (Morey 2000). They could also burrow beneath the soil and be crushed by vehicles. If BIO-55 restricts work during extreme cold and heat (below 67 degrees F or over 100 degrees F), this would reduce the impact of being crushed by vehicles. P. blainvillii may only be active during the early morning and evening hours in the summer (Morey 2000).	Text added to each Alternative to discuss potential mortality of Blainville's horned lizard during operations and maintenance and Mitigation Measure BIO-55 was modified.
2762	74	[Page] 4.3.8-109 [Line] 28-29: The existing habitat in Contra Costa County that ECs [environmental commitments] would connect to is potentially occupied by both the coachwhip and the horned lizard. Adding this information would strengthen the analysis.	Comment noted.
2762	75	[Page] 4.3.8-110 [Line] 1-7: Strengthen the CEQA conclusion by also referencing the RRPPs [resource restoration and protection principles] [VP/AW1, VP/AW3, VP/AW5, VP/AW6, VP/AW7, G4, G5, G6].	Added G4, 5, and 6 to bulleted list of species benefits but not to the CEQA conclusion since we did not do this for other species and it is understood that these apply. VP/AW are included in the text already for ECs and were not added to bulleted text. Change was made only to Alternative 4A.
2762	76	[Page] 4.3.8-110 [Line] 15-16: MM BIO-55 is too open-ended in that it doesn't commit to protecting the individual(s) found if passive relocation is infeasible. We [CDFW] suggest consulting other CEQA documents, project reports, or species guidelines to determine other methods that could be used to avoid harm to these species. Please explain how passive relocation would occur. If there is a guideline available, it should be referenced in the MM [mitigation measure]. Both the survey protocol and	The commenter states that MM BIO-55 is too open-ended and recommends that language be added to Mitigation Measure BIO-55 that the survey and relocation protocols will be approved by CDFW prior to start of construction. MM BIO-55 will be modified to include capture and relocation in consultation with CDFW as necessary.

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		the relocation protocol should be approved by CDFW prior to construction.	
2762	77	[Page] 4.3.8-110 [Line] 22: We [CDFW] suggest discussing impacts from noise, night lighting, accidental release of petroleum or other contaminants, and the inadvertent discharge of sediment or excessive dust. These species [silvery legless lizard, San Joaquin coachwhip, and Blainville's horned lizard] are known to burrow under loose sand and could be affected by contaminated dirt or excessive sediment, as well as construction activities compacting the dirt and sand. Artificial night lighting could affect the behavior of reptiles, but little is known about the effects of light and noise. A CDFW-approved relocation plan could ensure relocated individuals are out of the footprint of noise and light.	Regarding the commenter's concern over noise, construction of the project uses noise thresholds established by DWR, which were established based on a consensus of experts, and local resource agencies. Mitigation Measure NOI-1a is available to reduce noise during construction. Operation of the project is expected to conform to local standards, through Mitigation Measure NOI-3. There is no suitable habitat for silvery legless lizard near where impacts will occur. The only suitable habitat identified in the analysis was at the Antioch Dunes. Blainville's horned lizard and coachwhip were considered as being potentially affected but there are no records of these species in the study area and the likelihood of being encountered is low. Mitigation measure BIO-55 has been revised to include a measure to relocate any of these species in consultation with CDFW if they are found in a work area.
2762	78	[Page] 4.3.8-136: Please explain why EC 10 is described as removing foraging habitat and is listed as a benefit to greater sandhilll cranes and a driver for the "less-than-significant" CEQA conclusion on page 4.3.8-139 line 10.	Environmental Commitment 10, Nontidal Marsh Restoration, would result in the loss of foraging habitat but would also specifically create roosting and foraging habitat for cranes as discussed in the bullet for Environmental Commitment 10. Environmental Commitment 10 is only part of the conservation effort to offset effects as described in the analysis and referred to in the NEPA and CEQA conclusions and is thus not the driver for the effects determination. Other measures include the protection and management of cultivated lands specifically to provide high to very high-value foraging habitat for cranes. In addition, AMM20 specifically provides for the avoidance and minimization of effects on greater sandhill cranes during construction and operations.
2762	79	[Page] 4.1-41: RRPP [resource restoration and protection principle] TB1: We [CDFW] suggest revising the wording of RRPP TB1 to include the possibility of protecting non-marsh occupied TRBL [tricolored blackbird] nesting habitat. "TB1 - Protect and manage occupied or recently occupied (within the last 15 years) tricolored blackbird nesting habitat located within 3 miles of high-value foraging habitat in Conservation Zones 1, 2, 8, or 11. Freshwater marsh nesting habitat will be managed to provide young, lush stands of bulrush/cattail emergent vegetation and prevent vegetation senescence."	TB1 was modified as suggested.
2762	80	[Page] 4.3.8-178 [Line] 20-23: Suggest changing this requirement to protect high- to very high-value foraging habitat within three miles of occupied or recently occupied nesting habitat to be consistent with the proximity requirement in the first bullet.	Protection within 3 miles is addressed with the protection of "130 acres …within 3 miles ….of nontidal wetland nesting habitat protected"; however, the remainder of protected habitat could be within 5-miles. Though 3-miles would be preferable it could be logistically challenging to find all the 1,416 acres of high- to very high-value breeding-foraging habitat within 3 miles of nest sites.
2762	81	[Page] 4.3.8-181 [Line] 22-29: As currently worded this language is too vague and doesn't technically require any avoidance of [tricolored blackbird] nesting colonies if the project proponent deems avoidance "infeasible."	The commenter is responding to the language in AMM 21 "Covered activities must avoid active tricolored blackbird nesting colonies and associated habitat during the breeding season (generally March 15–July 31). Avoidance measures will include relocating covered activities away from the nesting colonies and associated habitat to the maximum extent feasible. The water conveyance facilities can't be relocated without being subject to substantial redesign and additional environmental review and therefore would not be considered feasible. Restoration projects do have the flexibility to time activities and select restoration sites to minimize effects on biological resources, including listed species such as tricolored blackbird. Restoration projects will be subject to their own environmental review, which will identify and have measures for dealing with the presence of tricolored nesting colonies. DWR is currently seeking a 2081 to address the potential for take of tricolored blackbird.

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2762	82	[Page] 4.3.8-271 [Line] 16-17: We [CDFW] suggest removing this sentence because it lacks an explanation of why project activities are expected to have little impact on the [song sparrow Modesto] population. We suggest including the subsequent discussion of Ecs [environmental commitments] and impacts in the CEQA conclusion instead.	This sentence has been removed from the Final EIR/EIS.
2762	83	[Page] 4.3.8-271 [Line] 20-29: The song sparrow requires early successional riparian habitat with willow and a moderately dense understory with blackberry (California Partners in Flight and the Riparian Habitat Joint Venture 2004). VFR1 would have to guide all of the riparian mitigation for this species. Other RRPPs [resource restoration and protection principles] that would benefit this species and should be included are: GSC2, GSC3, TB1, TB4, and RBR1.	The other RRPPs listed would benefit Modesto song sparrow and though not specifically listed the related protection and restoration they would guide are included in the discussion.
2762	84	[Page] 4.3.8-272 [Line] 18: WYBC [western yellow-billed cuckoo] could use a young forest about 4 years old (Detting and Seavy 2012), which could also be suitable for the song sparrow, as long as the brushy understory is present. "A period of time" could be specified as "at least 4 years."	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	85	[Page] 4.3.8-272 [Line] 25-28: Impacts that overlap with occurrences include the Intermediate Forebay (1 occurrence), access roads throughout the footprint (4 occurrences), and the CCF [Clifton Court Forebay] pumping area and conveyer (3 occurrences).	This comment references Impact BIO-142, Loss or Conversion of Habitat for and Direct Mortality of Modesto Song Sparrow in Section 4 of the RDEIR/SDEIS which fully addresses this potential effect.
2762	86	[Page] 4.3.8-273 [Line] 30: MM BIO-75 should also be applied to O&M [operations and maintenance] activities and added to this paragraph.	Mitigation Measure BIO-75 would be applicable to operations and maintenance. The impact conclusion includes the use of Mitigation Measure BIO-75 to avoid impacts to nesting birds.
2762	87	[Page] 4.3.8-274 [Line] 39-40: We [CDFW] suggest adding RRPPs [resource restoration and protection principles] [GSC2, GSC3, TB1, TB4, and RBR1] to this section.	The other RRPPs listed would benefit Modesto song sparrow and though not specifically listed the related protection and restoration they would guide are included in the discussion.
2762	88	[Page] 4.3.8-275 [Line] 8-11: There is not enough discussion in this section to explain why transmission lines are not expected to adversely affect the [song sparrow Modesto] population. There are several occurrences of this subspecies overlapping potential transmission lines. The Modesto population's distribution is primarily in the Delta and concentrated near the proposed tunnel alignment. We [CDFW] suggest including information about the species' behavior and maneuverability and focus on the effectiveness of diverters in reducing strike hazard for passerines. For example, song sparrows have a low wingload ratio (Poole 1938) but broad, high-aspect wings. They are moderately vulnerable to strikes and were found under power lines in studies where diverters were not installed (Brown and Drewien 1995, Yee 2007).	The EIR 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. The final transmission line design will be determined in consultation with the wildlife agencies and wildlife agency-. The EIR/EIS has evaluated potential impacts to the level of detail of engineering design that is available at this point.

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2762	89	[Page] 4.3.8-275 [Line] 24-25: There are numerous studies on the effects of anthropogenic noise on song sparrows. Song sparrows rely heavily on song to defend territories and attract mates and research indicates that construction noise greater than 50 dB [decibels] could cause the sparrows to change their singing behavior, which may threaten breeding in the vicinity of the proposed project (Wood and Yezerinac 2006). We [CDFW] suggest discussing this impact in more detail as a potentially significant effect without implementation of MM BIO-75.	Construction of the project uses noise thresholds established by DWR, which were established based on a consensus of experts, and local and resource agencies. Mitigation Measure NOI-1a is available to reduce noise during construction. Operation of the project is expected to conform to local standards, through Mitigation Measure NOI-3.The effects of noise greater than 50 dB is described and discussed under Impact BIO 144, and it is further stated that "Construction-related noise and visual disturbances could disrupt nesting and foraging behaviors, and reduce the functions of suitable habitat which could result in an adverse effect on these species." Although the Wood and Yezerinac 2006 paper is not cited to support this statement, the impact is described and mitigation measure BIO-75 is provided to reduce the impact to less-than-significant. Additional detail does not seem necessary to support the CEQA conclusion of LTS.
2762	90	[Page] 4.3.8-276 [Line] 1-5: Please add more discussion that is specific to the song sparrow, which feeds on invertebrates. There are studies that indicate song sparrows are at high risk for methylmercury [MeHg] exposure, and the song sparrow was considered a biosentinal species for MeHg contamination affecting reproductive success in the San Francisco Bay estuary (Jackson, Condon et al. 2011). Jackson, Evers et al. (2011) found a 34% reduction in Carolina wren (a similar songbird) nesting success in mercury contaminated sites. We [CDFW] uggest describing mercury as a potentially significant impact without implementation of EC 12.	The commenter cites recent research suggesting reduced reproductive success relative to exposure to mercury. The Jackson et al. (2011) study reported 34% lower nest success for Carolina wrens in mercury-contaminated watersheds compared to references sites. Individuals with higher blood mercury concentrations did have lower nest success. Jackson et al.'s analysis ranked mercury contamination as a leading predictor of next success for Carolina wrens in their study. Jackson et al. did model reproductive success relative to blood mercury concentrations, and as the commenter notes, the authors predict that there would be a 50% reduction in nest success (comparing probability of fledging at least 1 young at 0 ppm to the probability of fledging at least 1 young at 2.5 ppm blood mercury). The analysis in the EIR/EIS does acknowledge that implementation of tidal restoration could result in increased exposure of Modesto song sparrow to methylmercury and that this would be a significant impact. Environmental Commitment 12 was developed to minimize the potential for increased methylmercury exposure.
2762	91	[Page] 4.3.8-277 [Line] 2-3: There is research available which indicates the effects of mercury on breeding success. Jackson, Evers et al. (2011) state mercury concentrations above 0.4ppm [parts per million] (wet weight) translate to reproductive failure, and that concentrations in their study exceeded 2.5ppm, a level associated with a 50% decline in breeding success.	The commenter cites recent research suggesting reduced reproductive success relative to exposure to mercury. The Jackson et al. (2011) study reported 34% lower nest success for Carolina wrens in mercury-contaminated watersheds compared to references sites. Individuals with higher blood mercury concentrations did have lower nest success. Jackson et al.'s analysis ranked mercury contamination as a leading predictor of next success for Carolina wrens in their study. Jackson et al.'s did model reproductive success relative to blood mercury concentrations, and as the commenter notes, the authors predict that there would be a 50% reduction in nest success (comparing probability of fledging at least 1 young at 0 ppm to the probability of fledging at least 1 young at 2.5 ppm blood mercury). The analysis in the EIR/EIS does acknowledge that implementation of tidal restoration could result in increased exposure of Modesto song sparrow to methylmercury and that this would be a significant impact. Environmental Commitment 12 was developed to minimize the potential for increased methylmercury exposure. The commenter does not recommend any changes to the analysis or conclusions.
2762	92	[Page] 4.3.8-277 [Line] 1-13: Include discussion of selenium and AMM27 here.	A selenium analysis will be added for Modesto song sparrow in the Final EIR/EIS.
2762	93	[Page] 4.3.8-306 [Line] 20-22: This sentence states foraging habitat effects from water conveyance facilities and CM4 were not considered adverse because they convert one foraging habitat type to another. We [CDFW] suggest leaving effects from the water conveyance facilities out of this sentence so that effects can be stated separately from benefits. Effects from the water conveyance facilities would be adverse without environmental commitments, AMMs [avoidance and minimization measures] and MM BIO-166.	The sentence was deleted. The effects on foraging habitat and the protection and restoration of areas that would serve as foraging habitat are discussed below this section. The NEPA and CEQA conclusions were modified to include mention of foraging habitat losses and conservation.

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2762	94	[Page] 4.3.8-305 [Line] 11: Western small-footed myotis and Yuma myotis are also designated as Sensitive by BLM [Bureau of Land Management].	The commenter notes that western small-footed myotis and Yuma myotis are also designated as sensitive by BLM. This comment is acknowledged though for the purposes of this EIR/EIS the only designations listed in the text are those listed in Section 12.1.3, Special-Status Species.
2762	95	[Page] 4.3.8-305 [Line] 19-21: Surveys for presence/absence of special-status bats were not sufficient to identify the species present at bridges within the project area. As a result, impacts should be assumed in places where bridges overlap with the alignment, or bat surveys should be conducted prior to project activities at bridges within 300 feet of project disturbance. For example, Figure 12-51 shows a bridge across the Banks pumping plant canal at the southwestern tip of CCF [Clifton Court Forebay], adjacent to construction impacts. The South Mokelumne River bridge is about 300 feet from potential pressurized ventilation shaft construction on northeast Staten Island. If special status bats are using either of these bridges, they could be impacted by light, noise, vibration, and other disturbances, which would be offset with MMs [mitigation measures].	Commenter states that surveys for presence/absence of special-status bats were not sufficient to identify the species present at bridges within the project area. Mitigation Measure BIO-166 addresses the requirement for preconstruction surveys at all bridges within the vicinity of project impacts. Furthermore, the setting and impacts analysis included the potential for all species that could be present within the project footprint, not just those detected during the DWR surveys. No change needed.
2762	96	[Page] 4.3.8-306-307 [Line] 31, 1-2: We [CDFW] suggest stating clearly that MM BIO-166 will be implemented at these bridge sites as well as other roost sites in the project area.	The commenter requests that Mitigation Measure BIO-166 include language specifying the bridge sites noted in letter 2762 comment 95. Mitigation Measure BIO-166 clearly states that a qualified biologist will conduct preconstruction surveys and identify all suitable roosting habitat and if present, will conduct surveys including daytime and nighttime surveys and acoustic surveys. No change needed.
2762	97	[Page] 4.3.8-308 [Line] 5-8: It is unlikely that all, or even a majority, of the riparian habitat proposed for restoration and protection will provide adequate roosting habitat for special-status bat species. The same habitat committed as mitigation for other riparian species (including least Bell's vireo and riparian brush rabbit), which require low lying shrub riparian habitat, is unsuitable as bat roosting habitat. Additionally, the mitigation commitment for riparian habitat is not sufficient to meet the proposed CEQA/NEPA project level mitigation ratios for impacts to roosting habitat (lines 31-34). As a result of these discrepancies we [CDFW] cannot determine how the CEQA conclusion of "less-than-significant" is supported by the analysis and information available. Please revise to address these discrepancies.	Text added to all Alternatives regarding adequacy of riparian acres protected and restored.
2762	98	[Page] 4.3.8-310 [Line] 5: We [CDFW] suggest implementing surveys for special status bat species and MMs [mitigation measures] when direct impacts to roosting habitat (for example, trees and bridges) or impacts within 300 feet of roosting habitat are anticipated.	Mitigation Measure BIO-166 addresses the requirement for preconstruction surveys at all bridges within the vicinity of project impacts and includes areas within 300 feet of habitat.
2762	99	[Page] 4.3.8-311 [Line] 4: We [CDFW] suggest applying these protective measures to occupied structures and trees that are found to be used by the western red bat.	Commenter states that protective measures should be applied to occupied structures and trees found to be used by western red bat. The measures identified in MM BIO-166 apply to all species of bats including western red bat. No change needed.
2762	100	[Page] 4.3.8-310 [Line] 35: We [CDFW] suggest requiring that survey protocols or guidelines for western red bat be implemented by a qualified biologist. For example, western red bats have a unique call that can be easily detected through acoustic surveys but are visible only from the	The commenter states that survey protocols or guideline for western red bats be implemented by a qualified biologist. MM BIO-166 states that acoustic surveys will be conducted by a DWR biologist and that the qualified biologists will have knowledge of the species and experience with acoustic equipment and sampling methods. The mitigation measure is inclusive and was written to ensure inclusion of all potential

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		vantage point of looking underneath them. This is probably the only SSC [species of special concern] bat that would be found in the project footprint, so it should be addressed specifically.	bat species, including the western red bat. No change needed.
2762	101	[Page] 4.3.8-311 [Line] 5-6: We [CDFW] suggest revising the avoidance timing to March 1 through October 31. The Townsend's big-eared bat conservation strategy states maternity colonies begin to gather in March and nursery colonies break up in September and October (Pierson, Wackenhut et al. 1999).	Sentence was revised as follows: Disturbance of the bridge will be avoided between March 1 thought October 31 (the maternity period) to avoid impacts on reproductively active females and dependent young.
2762	102	[Page] 4.3.8-311 [Line] 11-12: It is not clear why the exclusion device season is split up between spring and fall, when Townsend's big-eared bat maternal sites could be active between March 1 and October 31. It would make more sense to have exclusion devices installed prior to project activities and prior to March 1, then not removed until after project activities at that location are completed.	Dates were changed to March 1 – October 31.
2762	103	[Page] 4.3.8-311 [Line] 27: "Every effort should be made to avoid the roost." As currently stated this section holds no promise of avoidance and minimization. We [CDFW] suggest revising to state that every effort [insert] will [/insert] be made to avoid the roost.	Text was revised to state every effort would be made to avoid the roost.
2762	104	[Page] 4.3.8-312 [Line] 17-23: This contradicts the proposed CEQA/NEPA mitigation ratios described on page 4.3.8-308. The mitigation acreages are not sufficient to meet proposed ratios for impacts to roosting habitat.	The text was revised to clarify.
2762	105	[Page] 4.3.8-312 [Line] 24: Artificial roosts should only be designed in consultation with CDFW.	Commenter states that artificial roosts should only be designed in consultation with CDFW. MM BIO-166 states that "Compensatory mitigation for the loss of roosting habitat will also be determined through consultation with CDFW and may include the construction and installation of suitable replacement habitat onsite. Depending on the species and type of roost lost, various roost replacement habitats have met with some success (e.g., bat houses, "bat bark," planting cottonwood trees, leaving palm thatch in place rather than trimming)." No changes required.
2762	106	[Page] 4.3.8-312-313 [Line] 41-42: We [CDFW] suggest adding a new MM [mitigation measure] with specific avoidance BMPs [best management practices] pertaining to indirect effects of lighting, noise, and vibration near sites where special status bat species are found. For example, we suggest requiring that noise barriers and lights be pointed inward or not extending 300 feet beyond the construction site for maintenance, operations or other activities in the measure. Or, effects could be avoided through buffers established under MM 166.	Agreed Mitigation Measure 166 will be revised to include buffers for indirect effects from construction noise, vibration, and lighting. An addition will be made requiring that noise barriers and lights be pointed inward or not extending 300 feet beyond the construction site for maintenance, operations or other activities in the measure.
2762	107	[Page] 4.3.8-308 [Line] 10-11: Reference ECs [environmental commitments] that specify what natural communities are included in the 15,194 acres. Although developed land may partially support	This information was given in the introduction and the acreage does not include developed lands, nor was it used to reduce significant impacts, only natural communities are described in the setting.

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		foraging bats it should not be used for mitigation or included in the analysis for reduced significant impacts.	
2762	108	[Page] 4.3.8-308 [Line] 33-34: Restoring up to 251 acres and protecting up to 103 acres of valley/foothill riparian does not meet the proposed mitigation ratio identified in the text.	The analysis incorrectly alludes to the 269 acres of roosting habitat being impacted is made of riparian habitat. Only 72 acres of riparian habitat would be included in this total, the rest consists of developed lands and landscaped trees, including eucalyptus, palms and orchards. The discussion has been modified.
2762	109	[Page] 4.3.8-309 [Line] 14: [We [CDFW] suggest adding a new MM [mitigation measure] with specific avoidance BMPs [best management practices] pertaining to indirect effects of lighting, noise, and vibration near sites where special status bat species are found. For example, we suggest requiring that noise barriers and lights be pointed inward or not extending 300 feet beyond the construction site for maintenance, operations or other activities in the measure. Or, effects could be avoided through buffers established under MM 166.] If a new MM is included, add as part of the CEQA conclusion.	Mitigation Measure 166 has been revised to include buffers for indirect effects from construction noise, vibration, and lighting. Texted modified requiring that noise barriers and lights be pointed inward or not extending 300 feet beyond the construction site for maintenance and operations or other activities.
2762	110	[Page] 4.3.8-309 [Line] 17-18: [Resource restoration and protection principle] RRPP G2 creates ponds for herps and has nothing to do with bats. We [CDFW] suggest removing this reference. G6 would benefit bats by increasing insect prey. G1, G3, and G4 could also be beneficial. CL1 and CL2 might also be worth mentioning.	The text was modified as suggested except that ponds were left in because they do also provide foraging habitat for bats and a water source. That change was made only to Alternative 4A.
2762	111	[Page] 4.3.8-246 [Line] 12: This sentence should reference Section 4.3.1.2, not 4.3.4.8.	The section reference has been updated in Chapter 12, Section 12.3.4.2, of the Final EIR/EIS.
2762	112	[Page] 4.3.8-342-345: Tule greater white-fronted goose (TGWG) would not be affected by water conveyance construction or related activities and impacts because it is only found in Suisun Marsh west of Sherman Island. Unless tidal restoration is considered an impact in Suisun Marsh (not mentioned in the waterfowl section), there would be no impacts to this species based on current and known historic range and distribution. However, a habitat model could be created for the TGWG to determine if there are impacts on potential tidal or upland habitat outside of Suisun Marsh.	A statement was added to the discussion of tule greater white-fronted goose to specify that habitat in Suisun Marsh would not be affected under Alternative 4A.
2762	113	[Page] 4.3.8-342-345: ECs [environmental commitments] to restore or create tidal wetlands in the north and south Delta would not benefit TGWG [tule greater white-fronted goose], based on its current and historic range. The species would benefit from tidal marsh restoration and creation or protection of grassy uplands or high marsh in the vicinity of Suisun Marsh.	The commenter states that tule greater white fronted goose would not benefit from the creation or restoration of tidal wetlands in the north and south Delta because they primarily occur in the vicinity of Suisun Marsh. Alternative 4A would not result in any impacts in the vicinity of Suisun Marsh so there would be no need to mitigate for effects on the species.
2762	114	[Page] 4.3.8-342-345: Creation or protection of managed wetland for redhead would require a RRPP [resource restoration and protection principle] for the species: that summer water is maintained greater than 1 meter deep. Otherwise, this would be a limiting factor for	Nontidal marsh and managed wetlands are not specifically being created for redhead nesting habitat; however, nontidal marsh will have a range of depths that could support breeding habitat during summer months. The protection of 119 acres of nontidal wetlands and the creation of 832 acres of nontidal wetlands would likely provide some benefits to redhead and offset effects on 22 acres of managed wetland and 61 acres of nontidal wetlands, which may also not meet the greater than 1 meter depth criteria for breeding

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		redhead breeding in the restored or protected wetland.	habitat.
2762	115	[Page] 4.3.8-342-345: Redhead nests in the Yolo Bypass, but there appear to be no recent records in Suisun Marsh or the Delta. Due to the vast contraction of this species' range in this area, we [CDFW] suggest developing a MM [mitigation measure] to survey for the species on modeled habitat overlapping the project footprint, with a strong breeding season restriction measure if it is found or a revised version of MM BIO-75.	Mitigation Measure BIO-75 would cover any potential impacts to nesting birds, including redhead. The measure is not restricted to certain types of habitats and is written to consider all suitable nesting habitat for avian species.
2762	116	[Page] 4.3.8-349 [Line] 1-3: Without a specific bird-strike analysis for diving ducks, such as redhead, it should not be assumed that diverters installed will reduce this impact to less than significant. APLIC [Avian Power Line Interaction Committee] (2012) reported different mortality rates between ducks and cranes. Additionally, ducks are slightly "poorer" fliers and myopic in the air. Though ducks do react positively to diverters, a risk assessment for this species would be appropriate, given how rare it is in the area.	The impact of electrical transmission facilities on waterfowl was evaluated in Impact BIO-182. Though an individual risk assessment was not conducted for diving ducks, the analysis assumes that the new lines would increase the risk and have an adverse effect on waterfowl. The overall risk of collision for an individual bird is relatively low when considering that studies reported in APLIC 2012 found that the number of observed collisions per number of birds flying by a line ranged between 0.00004% and 0.07% (APLIC 2012:140). On page 78 of APLIC 2012, it states that sandhill cranes, Canada geese, and ducks reacted to marked lines by increasing their altitude and reaction distance. Please refer to Master Response 17.
2762	117	[Page] 4.3.8-352 [Line] 37-39: MM 75 is focused on land birds such as passerines nesting on terrestrial vegetation rather than flooded wetlands with emergent vegetation (Custer 1993). We [CDFW] suggest adding a MM [mitigation measure] similar to 75 which is customized to ducks, including redhead.	The language in Mitigation Measure BIO-75 is not specific to terrestrial birds. Vegetation removal restrictions would apply to both upland and emergent vegetation. The target species are "nesting birds", which does not imply that only terrestrial birds will be surveyed for.
2762	118	[Page] 4.3.8-280 [Line] 37-38: Instead of stating "predicted flows under 4A would not be substantially greater," the conclusion could state that the model outputs indicate no substantial difference between 4A and Existing Conditions, if that is the case. It is important to elucidate the uncertainty of the model predictions as well as the complex variables of bank swallow habitat suitability, which compounds the need for mitigation.	The language has been modified in both the NEPA and CEQA conclusions.
2762	119	[Page] 4.3.8-281 [Line] 1-13: We [CDFW] suggest revising BIO-147 to reflect the fact that bank swallow breeding colonies move along the river from year to year and are not necessarily found in fixed locations over time. Suggested revisions shown below. "To address the uncertainty of the impact of upstream spring flows on existing bank swallow habitat, DWR will monitor colonies upstream of the study area [insert] along the Sacramento and Feather Rivers, [/insert] and collect habitat suitability data including soil type, number of active burrows per colony, and height of average burrows. [insert] Using survey data [/insert] DWR will quantify the magnitude of spring flows that would result in potential mortality of active colonies [insert] each year [/insert]. In addition, to determine the degree to which reduced winter flows are contributing to habitat loss, DWR will quantify the winter flows required for river meander to create suitable habitat through lateral channel migration and bank resurfacing. If impacts of upstream flows on bank swallow [insert] habitat or individuals [/insert] are identified, replacement habitat will be established at a minimum of 2:1 for the length of bank habitat affected. Replacement habitat will	The recommended changes for the bank swallow mitigation measures are noted. Though the recommended changes are not necessarily wrong, they do not substantially clarify or change the intent or effectiveness of the mitigation. No changes were made to this measure based on this comment.

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		consist of removing bank revetment to create habitat for bank swallow at a location subject to CDFW approval (Bank Swallow Technical Advisory Committee 2013)."	
2762	120	[Page] 4.3.8-237 [Line] 39: Please provide a list of the selected cultivated lands that were included in the model. We [CDFW] suggest including low-height crop types used for hunting small mammals (similar to Swainson's hawk, white-tailed kite, ferruginous hawk, and golden eagle) in this list. For example, the harrier uses alfalfa, grain, beets, tomatoes, and melons (Davis and Niemela 2008).	The introductory paragraph has been modified to detail the list of cultivated lands that is included in the model: Grain and Hay Crops, Pasture (including alfalfa), Rice, Truck, nursery, and berry crops (including tomatoes and melons), beets, and Idle lands.
2762	121	[Page] 4.3.8-238 [Line] 3: We [CDFW] suggest adding ECs 3, 8 and 9 to this list as benefits to northern harrier (NOHA). The BSSC [Bird Species of Special Concern] account states this species uses VP [vernal pool] complex as well as annual, perennial, and ruderal grasslands. Grassland is the most important habitat type for both species, especially the short-eared owl (SEOW).	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	122	[Page] 4.3.8-238 [Line] 22: SEOW [short-eared owl] and NOHA [northern harrier] have different nesting habitat types than those specified in the parentheses in MM BIO-175 (marshes, grasslands, etc.). We [CDFW] suggest removing the parenthetical in MM BIO-175 so that the mitigation measure refers to all suitable habitat types for all species relying on it.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	123	[Page] 4.3.8-240 [Line] 2-3: Both the NOHA [northern harrier] and SEOW [short-eared owl] are ground nesters. This language needs to be revised. Ground disturbance impacts could be more than a minor disturbance to suitable SEOW and NOHA ground nesting habitat. We [CDFW] suggest also adding a reference to MM BIO -175, as in the bullet below this paragraph.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	124	[Page] 4.3.8-240 [Line] 5: There is a word missing in this sentence. The sentence should state that these activities could impact SEOW [short-eared owl] and NOHA [northern harrier] nests.	The text has been updated in Chapter 12, Section 12.3.4.2, of the Final EIR/EIS.
2762	125	[Page] 4.3.8-240 [Line] 40: NOHA [northern harrier] also nests in grasslands, including those within a vernal pool matrix.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	126	[Page] 4.3.8-240 [Line] 43: Clarify that these species [short-eared owl and northern harrier] use the same foraging habitat as SWHA [Swainson's hawk].	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	127	[Page] 4.3.8-241 [Line] 6-7: Including ECs 8 and 9 as well as vernal pool complex protection would contribute to the analysis that environmental commitments far exceed proposed CEQA mitigation ratios. For example, though the CEQA analysis does not include restoration of	The potential benefits of EC8 have been added to the impact analysis.

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		grassland, EC 8 would benefit the species beyond the proposed mitigation ratio. This is important to point out since the environmental commitments are not necessarily tied to meeting compensation requirements under CEQA. We [CDFW] suggest presenting the ECs [environmental commitments] as voluntary conservation actions that benefit the species as much as, or more than, proposed CEQA mitigation ratios. [Page] 4.3.8-241 [Line] 36-37: Carry over ECs 8 and 9 to the CEQA analysis, per comment on page 4.3.8-241, lines 6-7.	
2762	128	[Page] 4.3.8-242 [Line] 9-11: Please explain "ground-based foraging behavior" (i.e., flying at low heights near the ground or hunting from the ground). SEOW [short-eared owl] occasionally hunts from a perch as well, but the perches are usually short (bushes, fence posts, etc.). A USFWS habitat model indicates trees are sometimes but rarely used (USFWS 2001). If the perch is high enough, this could increase the collision risk. The two species should be analyzed separately. NOHA [northern harrier] has long, narrow high-aspect wings with low wing loading and good maneuverability. Owls have lower aspect wings which decrease their maneuverability. Therefore, the owls may have a low to moderate risk of collision, which would be reduced by the diverters.	Ground-based foraging behavior in this instance means that they are flying at low heights above the ground. The two species do have generally similar habitat use and foraging strategies and though they do have different maneuverability and wing loading it remains that their general pattern of foraging behavior (low height above the ground) and keen eyesight puts them at a low risk for line collision. So, separate analyses for the two species would not substantially inform the effects determination.
2762	129	[Page] 4.3.8-245 [Line] 20-42: Selenium and AMM 27 are not discussed.	Selenium and AMM27 have been added to CEQA conclusion.
2762	130	In general, the discussion of adverse impacts to plant species centers on impacts to occurrences, not suitable habitat. Proposed mitigation for impacts to occurrences is described in MM BIO-170. This approach does not acknowledge that impacts to suitable habitat also constitute an adverse effect, even if no individuals of a species are killed. Removing suitable habitat could extirpate existing seed banks and will ultimately restrict the range of a species. Eliminating suitable habitat could also diminish the ability of a species to shift its distribution in response to future environmental changes (ex. climate change and development). According to Section 12.3.1.2 of the Public Draft BDCP EIR/EIS an adverse impact under CEQA would result if: "-A permanent reduction in the acreage and value of known occupied habitat for noncovered plant species -permanent reduction in the acreage and value of modeled habitats for special-status species" Although they weren't analyzed as such, reductions in the amount of suitable habitat (occupied and unoccupied) constitute an adverse effect on sensitive plant species under the definition provided in the EIR/EIS. Additionally, the future viability of a species is likely to be diminished as a result of impacts to suitable habitat. Given these discrepancies we [CDFW] cannot determine how "less-than-significant" CEQA conclusions for special status plants are supported by the information available. Please address these discrepancies.	The commenters suggest that the discussion of adverse impacts on plant species does not adequately address suitable habitat and that because of this they [CDFW] cannot determine how the analysis supports a "less-than-significant" conclusion. The commonly accepted definition of "suitable habitat" is the habitat that species use for survival and reproduction. For many, if not most plant species, suitable habitat has not been characterized, or at best, has been poorly characterized. Information on the parameters and extent of suitable habitat for plant species occurring in the project area is only partially available. To address this lack of information, two separate and independent analyses were done to assess the project impacts on threatened and endangered plant species. First, the BDCP attempted to characterize suitable habitat for the covered species by employing habitat modelling. The habitat models were assumed to identify the maximum limits of potentially suitable habitat for each species, so that the magnitude of potential effects on species and appropriate levels of habitat protection could be identified. However, the modeled habitat did not accurately describe the actual extent of suitable habitat, which was not determined. The BDCP used modelling to determine the location of potentially suitable habitat in the project area. This is a standard approach that creates habitat models that are a relatively good approximation of suitable habitat for widespread species that disperse readily between different habitat types. However, this approach has limited utility for species that occur in metapopulations, which is characteristic of most rare plant species in California. Habitat for plant species that occur in metapopulations is discontinuous, often consisting of small islands of specific microhabitat within a larger habitat type (for example, vernal pools within California prairie). Habitat models for rare plants in California are rudimentary because the microhabitat parameters for nearly all plants are poorly known, and modelling often ignores historical events (e.g., habitat conversion or alteration) and species' dispersal ability. Although the models

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		[Page] 4.3.8-319 [Line] 12-13: "This could be an adverse effect, depending on whether or not the affected modeled habitat is actually occupied by the species." See special status plant species general comment above. Please revise to address the discrepancies identified therein.	predict the location of potentially suitable habitat, the modeled habitat cannot be considered to be suitable habitat until the parameters that provide for the survival and reproduction of the species have been determined. Currently, the only practical way to determine whether habitat is suitable is to determine whether it is occupied by the species. Consequently, the habitat models for covered plants developed for the BDCP did not accurately characterize suitable habitat for those species. The models vastly overestimated the amount of suitable habitat and the magnitude of effects on populations and plants. At the same time, the models had a high potential for failing to identify occupied habitat, which meant that modelling could not be used to conclude that the project would avoid an impact. The impacts based on these models were hypothetical, that is, impacts on modelled habitat were assumed to be adverse whether or not the habitat was actually occupied or actually suitable habitat. To offset these hypothetical impacts, the BDCP proposed to preserve an amount of modeled habitat equal to the amount lost, which was hypothetical compensation, because the modeled impacts would be offset by preserving modeled habitat. The EIR/EIS disclosed and discussed the BDCP analysis based on the modelling approach and concluded that the benefit of preserving large tracts of potential habitat adequately offset the potential impacts. Because of the limitations of the modelling approach and because models were only done for the species proposed for HCP coverage, the EIR/EIS analysis took a second approach to identifying actual project impacts on threatened and endangered plants. The second analysis was done utilizing data on known occurrences from the CNDDB and from surveys done by DWR staff. The analysis identified and assessed whether populations would be affected and characterized the extent of the effects. This second approach gave a more realistic characterization of the number of populations and plants that would be affected. Nevertheless, because the entire project area was not surveyed, this second approach still has the limitation that impacts on threatened and endangered plants in unsurveyed areas cannot be adequately assessed and addressed unless and until those areas have been surveyed. In summary, project impacts on suitable habitat for threatened and endangered plants were addressed, both directly (analysis of impacts on occurrences) and indirectly (habitat models). Although some portions of the project area have not been surveyed, and the full extent of suitable habitat has therefore not been determined, the lead agencies do not agree that a CEQA conclusion cannot be reached. The lack of full survey coverage is addressed in MM BIO-170, which requires that areas that may be impacted by project activities shall be surveyed, and that impacts either be avoided or mitigated to a less-than-significant level.
2762	131	[Page] 4.3.8-320 [Line] 31-43 We [CDFW] suggest referencing the 250-ft. buffer here and in AMM11 to ensure that avoidance of special status plant species is achieved as intended.	This section does reference AMM11 and the 250 foot buffer.
2762	132	[Page] 4.3.8-321 [Line] 20-22: This statement is too vague to be evaluated in the context of a CEQA conclusion. Please quantify expected impacts to suitable habitat and all proposed mitigation of alkali seasonal wetlands and special status plant species which occur in this natural community.	The vegetation mapping done for the analysis did not separate alkali seasonal wetlands from vernal pool complex, so the amount of alkali seasonal wetlands that would be preserved was not quantified. “A small amount” is the most accurate available description. Mitigation measures are described in the preceding paragraph.
2762	133	[Page] 4.3.8-323 [Line] 1: Please add references to mitigation measure BIO-170 when discussing mitigation for impacts to grassland special-status plant species to ensure consistency in the approach to all special-status plant species in the project area.	AMM 11 addresses impacts on occurrences of special-status plants. However, for redundancy, reference to mitigation measure BIO-170 has been added to the discussion of mitigation for impacts on grassland and tidal wetland special-status plant species. The following statement will be added to the discussion of impacts on grassland species on page 4.3.8-324,

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		[Page] 4.3.8-330 [Line] 1-12: Please add references to mitigation measure BIO-170 when referencing mitigation for impacts to tidal wetland special-status plant species to ensure consistency in the approach to all special-status plant species in the project area. [Page] 4.3.8-330 [Line] 29-36: Please revise to include a reference to the mitigation requirement established in BIO-170 to provide a clear statement of mitigation commitments associated with impacts to occurrences of special-status plant species.	line 4: "Implementation of Mitigation Measure BIO-170, Avoid, Minimize, or Compensate for Impacts on Special-Status Plant Species, would address effects on undiscovered populations." The following statement will be added to the discussion of impacts on tidal wetland species on page 4.3.8-329, line 12: "Implementation of Mitigation Measure BIO-170, Avoid, Minimize, or Compensate for Impacts on Special-Status Plant Species, would also address these effects."
2762	134	[Page] 4.3.8-330 [Line] 39-41: Please add a reference to the mitigation requirement established in BIO-170 if an occurrence of side-flowering skullcap is impacted. Without this mitigation guarantee the impact on side flowering skullcap is more likely to be adverse as a result of impacts to suitable habitat combined with potential impacts to occurrences.	AMM11 in Appendix 3K addresses impacts and mitigation for impacts on side-flowering skullcap.
2762	135	[Page] 4.3.8-303 [Line] 34-37: San Joaquin pocket mouse typically uses sparse, dry grasslands without dense invasive grass thatch. It is likely that a large part of the 1,060 acres of grassland committed in EC 11 will not be suitable for San Joaquin pocket mouse because it will be immediately adjacent to aquatic habitat and intended as giant garter snake upland habitat. Additionally, the committed grassland acres do not achieve the 2:1 ratio proposed to mitigate impacts to San Joaquin pocket mouse under CEQA. As a result of these discrepancies, we [CDFW] cannot determine how the CEQA conclusion of "less-than-significant effect" is supported by the existing effects analysis and proposed mitigation. Please revise to address these discrepancies.	The proposed project would affect 1% of modeled habitat for the species in the study area. The modeled habitat itself is likely an overestimate of truly suitable habitat in the study area. The proposed conservation of grasslands includes 1,070 acres of grassland restoration and 1,060 acres of grassland protection, which includes protecting 647 acres in the Byron Hills area. The discussion of typical mitigation ratios states 2:1 protection, which would mean 1,372 acres protected. The proposal would result in the conservation of a total 2,130 acres. Though true that not all of this would be ideal habitat for pocket mice it is also true that the areas impacted are not likely ideal habitat for the species either, which includes strips of grass along levees and agricultural areas and areas adjacent to the existing Clifton Court Forebay. These areas all occur adjacent to aquatic habitat, which would be similar to a large portion of the grasslands protected and created for giant garter snake. Furthermore, the 647 acres to be protected in Byron Hill would likely be highly suitable for the species.
2762	136	[Page] 4.3.8-202 [Line] 14: Please revise this sentence. It is misleading to state that all "effects to the species would be avoided" as a result of implementation of AMM39. The primary intention of AMM39 is to avoid the possibility of take of white-tailed kite as a result of project activities.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	137	[Page] 4.3.8-205 [Line] 40: EC 7 is listed as both an impact to white-tailed kite (removal of foraging habitat) and a benefit (creation of nesting habitat). Please include an additional sentence justifying a "less-than-significant" conclusion based on the fact that nesting habitat is a more limiting resource for white-tailed kite in the Delta than foraging habitat to explain this apparent discrepancy.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	138	These species [Cooper's hawk and osprey] are different enough in their requirements to warrant separate impact analyses for each.	These species are included in same category because their habitat within the Delta is fairly similar (i.e., most riparian and mature trees are along the Sacramento River) for the two species. Also, habitat impacts are considered to be a conservative estimate for both species. No change is necessary to support the less than significant impact conclusion.

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2762	139	[Page] 4.3.8-217 [Line] 36-37: As currently written AMM18 pertains only to SWHA [Swainson's hawk] nests, not Cooper's hawk and osprey. We [CDFW] suggest adding a similar MM [mitigation measure] for Cooper's hawk and osprey in Section 4. If planting mature trees will mitigate impacts on these species to less than significant, it should be specified in a RRPP [resource restoration and protection principle] (e.g., appended to VFR1).	The change does not seem necessary to support the less than significant impact conclusion. The habitat restoration guided by AMM19 will also create nesting habitat for Cooper's Hawk and Osprey.
2762	140	[Page] 4.3.8-218 [Line] 3-5: RRPP VFR1 may not benefit osprey. Osprey need tall trees with open space for easy access over or near water. The species could benefit from Swainson's hawk needs, but not necessarily from the needs of LBVI [least Bell's vireo] and other riparian passerines and small mammals that the objective is intended to benefit. VFR1 could benefit Cooper's hawk, however, so rather than remove this measure, also reference CL1 (isolated trees) and VFR2 (mature trees) as benefits for osprey.	VFR1 is likely to be implemented adjacent to water and therefore some of the riparian habitat created would be expected to benefit osprey. More detail has been added to the impact analysis to outline how CL1 and VFR2 will benefit osprey.
2762	141	[Page] 4.3.8-218 [Line] 6: First sentence: "Maintain a single contiguous patch of 100 acres of mature riparian forest. . . " was likely meant to be a bullet point to add to the paragraph above and would benefit osprey. Please clarify that this commitment is stated in an RRPP [resource restoration and protection principle].	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	142	[Page] 4.3.8-218 [Line] 19: Add a reference to Figure 12-33. The two species' [Cooper's hawk and osprey] habitat requirements are not exactly the same. Ensure the model includes elements needed by both species (e.g., elements of SWHA [Swainson's hawk] breeding habitat) and include rationale as to why the model and impacts analysis do not include foraging habitat for these species.	The species habitat models are not exactly the same but there is overlap and the impact acres are conservatively estimated. These species are not limited by foraging habitat. However, restoration and protection of suitable foraging habitat will occur under other species and natural community impacts (e.g., grassland, cultivated lands, open water associated).
2762	143	[Page] 4.3.8-219 [Line] 7: Ventilation shafts and geotechnical exploration are also impacts to riparian habitat not mentioned here.	The GIS analysis did not identify impacts to modeled nesting habitat for osprey and Cooper's (riparian with overstory) from geotech activities or ventilations shafts.
2762	144	[Page] 4.3.8-219 [Line] 13-15: Occurrence data in CNDDB [California Natural Diversity Database] were likely submitted only up to the point each species was no longer SSC [species of special concern]. If the data set used for the model doesn't include BDCP survey data, this would be an incomplete and outdated data set and should not be used for analysis of impacts.	The Final EIR/EIS does rely on prior records of species observations located in the CNDDB (records cited throughout Chapter 12 of the Final EIR/EIS) and those observations collected by DWR during various surveys (DHCCP in and around the conveyance alignment , see Appendix 12C of the EIR/EIS). Maps of recorded species observations are presented in figures at the end of Chapter 12 of the EIR/EIS. Occurrence data, which included CNDDB, DHCCP data, and records from species experts were used to supplement the development of the models; however, this information was not the sole basis for defining the species modeled habitat within the Plan Area. Regarding impacts to species, the occurrence data was only used to note where prior occupied habitat had been documented and not a basis for stating that there would not be an impact on a species. The particular text referred to in the comment states that though there are no occurrences for these species within the construction footprint, Mitigation Measure BIO-75: Conduct Preconstruction Nesting Bird Surveys and Avoid Disturbance of Nesting Birds, will be available to minimize effects on these species while nesting.

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2762	145	[Page] 4.3.8-219 [Line] 28-30: Nest trees should never be removed as part of EC 11 activities. These species' [Cooper's hawk and osprey] foraging habitats are not modeled or considered in the impact analysis.	Potential nesting habitat for Osprey and Cooper's hawk could be affected as part of CM 11 but removal of nest trees would be prohibited and effects of any habitat loss would be expected to be minimal and would be avoided and minimized by the AMMs including AMM18 (as stated in the same paragraph, line 34-35) and by Mitigation Measure BIO-75, Conduct Preconstruction Nesting Bird Surveys and Avoid Disturbance of Nesting Birds (page 220, line 14-15). Foraging habitat for Osprey (open water) and for Cooper's hawk (most land cover types) is not limited in the study area and therefore effects on foraging habitat is not expected to substantially affect either species at the individual or population level. Moreover, effects on these landcover types are included in the impact analysis for natural communities and for other wildlife species habitat (e.g. Swainson's hawk, white-tailed kite, golden eagle) and any effects are compensated for under these impacts.
2762	146	[Page] 4.3.8-220 [Line] 33: Replace reference to white-tailed kite with the species being discussed in this section [Cooper's hawk and osprey].	This change has been made in Chapter 12, Section 12.3.4.2, of the Final EIR/EIS.
2762	147	[Page] 4.3.8-221 [Line] 2-5: Foraging habitat for these species [Cooper's hawk and osprey] was not discussed in this analysis. Carrying over EC 7 from SWHA [Swainson's hawk] is not appropriate for these species. Osprey forage for fish in open water; and Cooper's hawk forage for primarily small birds and mammals, generally in forests with open or edge habitat, shrublands, and grasslands. One study indicated agricultural fields were avoided by Cooper's hawk (Stephens and Anderson 2002).	Agreed that osprey forage on fish and Cooper's hawk forage on small terrestrial prey. The analysis is focused on the more limited resource (i.e. nesting habitat). EC7 would be expected to create potential nesting habitat for both species as riparian restoration will be focused adjacent to water and will create potential nesting and foraging habitat for Cooper's hawk.
2762	148	[Page] 4.3.8-221 [Line] 30-31: The CEQA conclusion should rely on MM BIO-75 and any additional MM [mitigation measure] or RRPP [resource restoration and protection principle] for the planting of mature trees that compensate for impacts on these species [Cooper's hawk and osprey].	The finding is only less than significant with implementation of Mitigation Measure BIO-75. The other ECs and RRPPs are part of the project description.
2762	149	[Page] 4.3.8-222 [Line] 1: Some hawks have lower aspect (wider wings) than the best flyers on the scale, increasing susceptibility to collision (APLIC [Avian Power Line Interaction Commission] 2012). Osprey have long and slender high-aspect wings compared to other hawks, and this could attribute to good maneuverability and avoidance; whereas Cooper's hawks have short, rounded wings with lower aspect, increasing susceptibility (Bildstein 2006, Cornell Lab of Ornithology 2015).	The commenter states the differences between osprey and Cooper's hawk wings and correctly points out their differences in maneuverability. The analysis in Appendix 5J, though only done for covered species, is generally applicable to other species. The vulnerability analysis considered several factors including the maneuverability of the species, flight height, foraging behavior, the tendency of the species to flock, vision, and migration. Cooper's hawks usually fly close to the ground or below the tree canopy when hunting or approaching and departing their nests, and therefore the risk of colliding with powerlines that are typically above the tree canopy is relatively low. Soaring does occur during breeding but does not involve diving behaviors that would increase risk of collision.
2762	150	[Page] 4.3.8-222 [Line] 4-5: Brown and Drewien (1995) did not show dramatic decreases in collision across all species, but they did imply that markers contributed to a lower observed rate of bird mortality. Buteo species (low wing aspect hawks) were found dead under powerlines in both studies.	The analysis in the EIR/EIS does not dismiss the risks to both species nor does it say there is no potential for injury or mortality, but does characterize the risk as low.
2762	151	[Page] 4.3.8-222 [Line] 19: "General" maneuverability does not clearly justify this CEQA conclusion. Instead, we [CDFW] suggest that the conclusion state that osprey's high maneuverability and keen eyesight contribute to a minimal effect of collision. For Cooper's hawk, low-aspect	The flight behavior of Cooper's hawks does reduce the risk. Cooper's hawks usually fly close to the ground or below the tree canopy when hunting or approaching and departing their nests, and therefore the risk of colliding with powerlines that are typically above the tree canopy is relatively low. Soaring does occur during breeding but does not involve diving behaviors that would increase risk of collision. The flight behavior does reduce this risk for Cooper's hawk so the NEPA and CEQA conclusions will be modified to include flight

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		wings could increase susceptibility, but low wing loading and good eyesight help to decrease susceptibility. Also, hawks do not tend to fly in flocks. If described in this way, the CEQA conclusion could state that Cooper's hawk has a moderate level of susceptibility, but AMM20 would reduce this to a less than significant impact.	behavior.
2762	152	[Page] 4.3.8-222 [Line] 44: Ospreys would be more susceptible to methylmercury exposure than Cooper's hawk, because they prey on fish.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	153	[Page] 4.3.8-224 [Line] 8-10: BIO-75 refers to surveys and buffers prior to construction. It does not specifically address operations and maintenance [O&M] activities after construction. To rely on MM BIO-75 for this indirect effect, BIO-75 would need to be updated to include provisions addressing O&M activities.	The mitigation measures are intended to be applicable to operations and maintenance activities as well, as stated in impact BIO-78 NEPA and CEQA conclusions. However, to make it clear the introductory sentence to Mitigation Measure BIO-75 will be modified as follows. To reduce impacts on nesting birds, DWR will implement the measures listed below prior to construction and operations and maintenance activities.
2762	154	We [CDFW] suggest separating ferruginous hawk analyses (FEHA) from golden eagle (GOEA) analyses. GOEA is a fully protected species and there appear to be differences in habitat requirements.	Habitat types are similar enough for the two species based on the resolution of the natural community data used for habitat classification. Fully protected species status of golden eagle is called out separately within the impact analysis.
2762	155	[Page] 4.3.8-224 [Line] 36-37: FEHA [ferruginous hawk] distribution appears to be correlated with lagomorph populations, so croplands may not provide long-term viability unless mixed into a grassland matrix (Hunting 2000). In contrast, GOEA [golden eagle] is known to hunt for rabbits or other small mammals in most open areas. The habitat model for FEHA should focus more on the grassland complexes and only include agricultural land mixed with grassland or wetlands. Note that Figure 12-34 does not include the habitat model layer.	Habitat models for non-covered species are not to the resolution to specifically depict cultivated lands that are surrounded by grasslands. Impacts are over-estimated using current approach to allow for this scale of analysis and thus the effects are not being underestimated. Comment regarding Figure 12-34 is correct. Habitat model was added to the figure.
2762	156	[Page] 4.3.8-225 [Line] 4: Protecting cultivated lands may not benefit FEHA [ferruginous hawk]. Changes in the distribution of FEHA could have resulted from conversion of grassland to agriculture, where such conversion did not negatively affect SWHA [Swainson's hawk] (Hunting 2000, Wiggins, Schnell et al. 2014). ECs 8 and 9, which would restore grassland complexes that have higher concentrations of rabbits, and protection of VP/ASW [vernal pool/artificial seasonal wetland] complexes in EC 3 would benefit FEHA as well as GOEA [golden eagle].	Cultivated lands included in the GOEA/FEHA model consist of idle, recently fallowed lands, grain and hay crops, and pasture in addition to grassland, alkali seasonal wetland, and vernal pool complex. All of these provide some foraging value for both species (Shuford et al. 2008). Added EC 8 and EC9 to impact discussion for Alt 4A. An emphasis on the benefit of grassland and VPC/ASW protection and restoration was added to the impact discussion. Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	157	[Page] 4.3.8-225 [Line] 23: Include EC 9.	Temporary impacts from EC9 added here and also to the section describing benefit from EC9.
2762	158	[Page] 4.3.8-225 [Line] 29, [Page] 4.3.8-226 [Line] 22: These impacts could eliminate both GOEA [golden eagle] and FEHA [ferruginous hawk] habitat; the sentence just refers to GOEA habitat.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.

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2762	159	[Page] 4.3.8-226 [Line] 12-13: As with other watch list species, CNDDB [California Natural Diversity Database] may have fewer entries for FEHA [ferruginous hawk] after the species was taken off the BSSC [Bird Species of Special Concern] list. FEHA was observed in Stone Lakes NWR [National Wildlife Refuge] (Appendix C, Stone Lakes NWR Conservation Plan); therefore, it could be within the vicinity of the intake structures.	Any suitable habitat for FEHA would be considered for possible presence. The EIR/EIS analysis does not rely on avian occurrence data for significance conclusions. No change is recommended.
2762	160	[Page] 4.3.8-226 [Line] 28: Remove reference to SWHA [Swainson's hawk] habitat and replace with GOEA [golden eagle]/FEHA [ferruginous hawk].	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	161	[Page] 4.3.8-226 [Line] 40: We [CDFW] suggest discussing O&M [operations and maintenance] in its own paragraph/bullet point.	This was a formatting error. Change made as suggested.
2762	162	[Page] 4.3.8-227 [Line] 16: Protecting 11,870 acres of cultivated lands may not meet the proposed mitigation ratio for FEHA [ferruginous hawk], depending on how they use that agricultural landscape. Many of these acres would include crop types that benefit species other than FEHA. Foraging crops for SWHA [Swainson's hawk] could provide foraging for FEHA; but FEHA uses agricultural land less than SWHA and is more negatively affected than SWHA by grassland conversion to agricultural fields. Intensive agriculture, as in most of the Delta, does not benefit FEHA. This may be a reason FEHA is rarely found in the Delta. We [CDFW] suggest conducting additional literature review and consulting experts to determine whether FEHA should have its own habitat model and impact analysis.	The commenter states that cultivated lands mitigation may not be sufficient to meet the mitigation ratio for ferruginous hawk. The commenter also states that ferruginous hawk are more dependent on grasslands than cultivated lands and that individuals are rarely found in the delta. The habitat model used in the EIR/EIS is overly conservative and also includes some cultivated lands that could be used by both ferruginous hawk and golden eagle. If the species is primarily dependent on grassland, the combined protection (1,060 acres) and restoration (1,070 acres) of 2,130 acres of grassland would more than offset the losses of 686 acres of loss of grassland from the project, and any benefit that did occur from cultivated lands protection would provide additional habitat for the species. Furthermore, a large portion of the impacted grasslands consists of narrow strips along levees that provide minimal foraging habitat.
2762	163	[Page] 4.3.8-229 [Line] 17-18: Please explain why wetland and aquatic habitats were not modeled and included in this analysis. All taxa in this section nest in tidal and nontidal marshes (freshwater or saltwater). Cormorants nest on the ground and on the edges of aquatic habitats (Cornell Lab of Ornithology 2015). Cormorant nests were found on Wheeler Island in Suisun Bay and in Venice Cut (Schwarzbach and Adelsbach 2003). Great blue heron nests were found on Wheeler and Van Sickle Islands, Suisun Bay. Great egret nests have been found in Grizzly Island and Montezuma Slough (Schwarzbach and Adelsbach 2003). Tidal and nontidal marshes and open water (margins of lakes, rivers, ponds, and shallow water/mudflats) are also foraging habitat and should be included in the model.	Because non-covered species are analyzed at the natural community level, including all wetland types in addition to riparian grossly overestimated impacts on rookeries. Selected riparian natural community to represent vegetation with structure that is primarily used for rookeries. MM-BIO 75 and rookery avoidance mitigation would require preconstruction surveys to minimize any effects on other wetland habitat. Changing the model is not suggested due to overestimated impacts.
2762	164	[Page] 4.3.8-229 [Line] 24-25: We [CDFW] suggest removing references to AMM18 throughout the impact analysis, relying instead on MM BIO 75 and other measures that require planting of mature trees].	AMM18 is the measure included that requires the planting of mature trees. The impact analysis also relies on MM BIO-75 and MM BO 117 to minimize impacts on active nests/rookeries.
2762	165	[Page] 4.3.8-229 [Line] 25-28: We [CDFW] suggest including EC 3 (protection of 119 acres of nontidal marsh), EC 4,	Chapter 12 of the EIR/EIS was revised based on the recommended changes.

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		and EC 10 in the bulleted list as offsets for impacts to marsh nesting habitat. Channel margin enhancement would also benefit these species [double-crested cormorants, herons, and egrets].	
2762	166	[Page] 4.3.8-230 -233: Impacts shown in Table 12-4A-44 and described in the text below will change if impacts to marsh habitat are added: [All taxa in this section nest in tidal and nontidal marshes (freshwater or saltwater). Cormorants nest on the ground and on the edges of aquatic habitats (Cornell Lab of Ornithology 2015). Cormorant nests were found on Wheeler Island in Suisun Bay and in Venice Cut (Schwarzbach and Adelsbach 2003). Great blue heron nests were found on Wheeler and Van Sickle Islands, Suisun Bay. Great egret nests have been found in Grizzly Island and Montezuma Slough (Schwarzbach and Adelsbach 2003). Tidal and nontidal marshes and open water (margins of lakes, rivers, ponds, and shallow water/mudflats) are also foraging habitat and should be included in the model.] Will need to revise accordingly.	Because non-covered species are analyzed at the natural community level, including all wetland types in addition to riparian grossly overestimated impacts on rookeries. Selected riparian natural community to represent vegetation with structure that is primarily used for rookeries. MM-BIO 75 and rookery avoidance mitigation would require preconstruction surveys to minimize any effects on other wetland habitat. Changing the model is not suggested due to overestimated impacts.
2762	167	[Page] 4.3.8-233 [Line] 40: Please add detail describing how all direct and indirect impacts on rookeries will be avoided to MM [mitigation measure] BIO-117. The MM should require surveys, buffers, and monitoring rookeries for disturbance in consultation with expert biologists, similar to MM BIO-75. MM BIO-117 should not be restricted to avoiding rookeries in riparian habitat, but include other habitat types where rookeries may occur (e.g., tidal or nontidal marshes, along the margins of aquatic features, etc.). Colonial nesters can be very sensitive to human disturbance. If one nesting bird is startled, the whole colony could abandon nests, resulting in many failed nests.	Mitigation Measure BIO-117 in combination with Mitigation Measure BIO-75 already requires surveys, buffers, and monitoring, which the analysis considers. As stated in Mitigation Measure BIO-75, USFWS and CDFW will be consulted when establishing buffers.
2762	168	[Page] 4.3.8-231 [Line] 4-6: We [CDFW] suggest adding a description or citation of the occurrence data sources referenced here. It is likely that few cormorant occurrences were submitted to CNDDB [California Natural Diversity Database] after the species was removed from the BSSC [Bird Species of Special Concern] list. Because egrets and herons are not special status species it is unlikely that many records have been submitted to CNDDB.	Note that occurrence data for avian species does not drive impact analysis conclusions. Citation added for DHCCCP survey data.
2762	169	[Page] 4.3.8-231 [Line] 6: MM [mitigation measure] BIO-117 should also be mentioned here.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	170	[Page] 4.3.8-231 [Line] 22-27: Localized ground disturbing activities could have more than a minor effect if they disturb cormorants nesting on the ground. Cormorants tend to nest on the ground after their nest trees fall over and die from stress and guano produced by a rookery (Cornell Lab of Ornithology). This impact to ground nesting cormorants should be discussed, along with [mitigation measures] MMs BIO-75 and BIO-117 which would offset any potential impacts.	Section referenced refers to potential habitat not active nests. Added the following language to the relevant section a few paragraphs down: Injury and Direct Mortality: If birds were to nest in the construction area, construction-related activities, including equipment operation, noise and visual disturbances could affect nests including any nests that are built on the ground (e.g. Cormorant nests that have been built on the ground after nest trees fall over or die from stress and guano produced by a rookery) or lead to their abandonment, potentially resulting in mortality of eggs and nestlings. Mitigation Measure BIO-75 and Mitigation Measure BIO-117 would be available to address these effects on cormorants, herons, and egrets.

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2762	171	[Page] 4.3.8-232 [Line] 6: [Mitigation measure] MM BIO-117 should also be mentioned here.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	172	[Page] 4.3.8-232-233 [Line] 35-43: We [CDFW] suggest adding a discussion of benefits to cormorants, herons and egrets from commitments to protect riparian habitat. Impacts to marsh habitat, and benefits associated with restoration and protection of marsh habitat, should also be discussed here. Taken together, it is likely that benefits of riparian and marsh ECs [environmental commitments] to cormorants, herons and egrets will exceed proposed CEQA mitigation ratios.	The restoration and protection of riparian habitat and protection and restoration of both tidal and nontidal wetlands are included in the list of measures that would benefit these species.
2762	173	[Page] 4.3.8-232 [Line] 29: Remove reference to white-tailed kite and replace with cormorants, herons, and egrets.	Chapter 12 of the EIR/EIS was revised based on the recommended change.
2762	174	[Page] 4.3.8-233 [Lines] 32 and 34: Remove reference to Cooper's hawk and osprey and replace with cormorants, herons, and egrets.	Chapter 12 of the EIR/EIS was revised based on the recommended change.
2762	175	[Page] 4.3.8-234 [Line] 4-6: Remove sentence referring to least bittern and white-faced ibis.	Chapter 12 of the EIR/EIS was revised based on the recommended change.
2762	176	[Page] 4.3.8-234 [Line] 8: Global change: Brown and Drewien (1995) did not show dramatic decreases in collision across all species, but they did imply that markers contributed to a lower observed rate of bird mortality.	Language was revised to state that flight diverters were shown to reduce the incidence of bird mortality.
2762	177	[Page] 4.3.8-234 [Line] 34: [Mitigation measure] MM BIO-117 should also be mentioned here.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	178	[Page] 4.3.8-235 [Line] 2: Please note that these species [cormorants, egrets, and herons] are especially susceptible to methylmercury because they consume fish. However, Schwarzbach and Adelsbach (2003) could be cited to state that cormorants, egrets, and herons in Suisun Marsh and the Delta had low enough levels to avoid embryotoxicity. This would supplement the discussion of lowered impact based on BDCP fish studies and EC 12.	The comment and recommendation is acknowledged. Though embryotoxicity may be low in these species there is still potential for an overall impairment of adults and reduced survivorship of young and thus the conclusion of a potential for impact from methylmercury remains.
2762	179	[Page] 4.3.8-235 [Line] 16: Global change: replace "tropic" with "trophic."	A correction has been implemented throughout Chapter 11, Fish and Aquatic Resources, of the Final EIR/EIS.
2762	180	[Page] 4.3.8-235 [Line] 37-44: In addition to studies discussed in the general copy-paste language, we [CDFW] suggest discussing results presented in Schwarzbach and Adelsbach (2003) in this section. They	The comment and recommendation is acknowledged. The analysis, though general, does address the overall potential for effect associated with the proposed project and is believed to be adequate for a programmatic level review. Each individual restoration project will have its own environmental review and will consider

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		found the highest selenium concentrations in great egrets, snowy egrets, and black-crowned night herons in San Francisco Bay. The cormorants had slightly lower levels. However, selenium levels were below known embryotoxic thresholds and were weakly correlated with mercury concentrations.	effects from selenium exposure in a greater level of detail.
2762	181	[Page] 4.3.8-342 [Line] 34-41: We [CDFW] suggest adding a discussion of the potential for direct mortality of shorebirds and waterfowl as a result of construction activities in Clifton Court Forebay. Waterfowl and shorebird experts indicate that several species nest on the southern edge of the forebay, where dredging and forebay expansion are proposed. We suggest revising BIO-178 to include this potential impact and associated mitigation.	The analysis below the section cited includes a discussion of the potential impact on nesting shorebirds and waterfowl, which is likely the only potential for injury or mortality of these birds from construction activities. Adults and juveniles would be able to, and would likely, flush from an area when construction activities are initiated on a given day (e.g., pedestrian activity, starting up equipment, general construction noise, equipment movement). Chicks and eggs would be vulnerable during construction that takes place during the nesting season, which is why the discussion includes using Mitigation Measure BIO-75 to avoid and minimize this from happening.
2762	182	[Page] 4.3.8-342 [Line] 17: We [CDFW] suggest including nontidal freshwater emergent wetland (marsh) natural community, which is separated from managed wetlands, grasslands, and VP/ASW [vernal pools/artificial seasonal wetlands]. These natural communities are also used by waterfowl and/or shorebirds (Shuford, Humphrey et al. 2004, Petrik, Petrie et al. 2012).	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	183	[Page] 4.3.8-342 [Line] 24-31: RRPPs [resource restoration and protection principles] that could also benefit waterfowl and shorebirds include GGS3, GGS5, WPT1 and sandhill crane RRPPs. Some waterfowl and shorebirds benefit from rice, managed wetlands, and natural wetlands. Other waterfowl (greater white-fronted geese and tundra swan) use chopped corn fields (CFR and TNC In prep). EC 8, EC 9 and RRPPs G2 and G3 could also be included.	Chapter 12 of the EIR/EIS was revised. Added EC 8 and EC 9 for Alt 4A, RRPPs are really specific to other species and are encompassed by these larger acreages.
2762	184	[Page] 4.3.8-342 [Line] 34-39: We [CDFW] suggest adding a discussion of impacts to 506 acres of grassland habitat (Table 12-4A-10 on page 4.3.8-54) and impacts to VP/ASW [vernal pools/artificial seasonal wetlands] which could adversely affect shorebirds and waterfowl.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	185	[Page] 4.3.8-343 [Line] 4-5: In some cases restored and protected acres would only provide suitable foraging habitat. For example, ducks forage in winter wheat and most of the shorebird species would be migrating, not nesting in the project area. We [CDFW] suggest adding restored grassland and protected/restored VP/ASW [vernal pools/artificial seasonal wetlands] complex to this discussion.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	186	[Page] 4.3.8-344 [Line] 24-26: [Resource restoration and protection principle] RRPP CBR1 does not guide the protection of cultivated lands. RRPPs [GGS3, GGS5, WPT1, sandhill crane, G2, and G3] would be beneficial to offset these impacts.	The text was corrected and reference to CBR1 was removed.
2762	187	[Page] 4.3.8-344 [Line] 31-38: Waterfowl also breed in grasslands (Shuford, Humphrey et al. 2004). We [CDFW]	Chapter 12 of the EIR/EIS was revised based on the recommended changes.

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		suggest including a discussion of impacts to grasslands and protection and restoration of grasslands (ECs 3 and 8) in Impact BIO-180.	
2762	188	[Page] 4.3.8-343 [Line] 34-35: EC 9 could also remove cultivated lands. We [CDFW] suggest discussing these potential impacts, or explaining why they are not included.	Implementation of Environmental Commitment 9 was intended to be located in areas classified as degraded vernal pool grasslands that still had remnant soils and topography. It is unlikely that EC 9 would remove cultivated lands. While this is not explicit within the draft BDCP's description of CM 9, the intent is demonstrated in the fact that there were no impacts from CM 9 (or EC 9) on other natural communities or cultivated lands because it would not result in a loss or conversion of habitat. It would in actuality provide even more suitable habitat for waterfowl.
2762	189	[Page] 4.3.8-343 [Line] 34-35: It is not clear why loss of managed wetlands, grasslands, and tidal/nontidal wetlands is not included in this discussion. If ECs [environmental commitments] would not remove these habitat types, it should be stated here.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	190	[Page] 4.3.8-344 [Line] 37-38: Please describe the proportion of grassland, nontidal and tidal wetland habitat (commensurate with the proposed mitigation ratio) [that] will be managed for breeding waterfowl while also meeting the needs of other species.	Impacts are analyzed at the natural community level and therefore are an overestimate of potential breeding waterfowl habitat. Habitat will not be managed specifically for breeding waterfowl. However, many of the management actions for other species will create similarly suitable habitat for breeding waterfowl.
2762	191	[Page] 4.3.8-345 [Line] 1-3: EC 9 could also remove cultivated lands. We [CDFW] suggest discussing these potential impacts, or explaining why they are not included. It is not clear why loss of managed wetlands, grasslands, and tidal/nontidal wetlands is not included in this discussion. If Ecs [environmental commitments] would not remove these habitat types, it should be stated here. Please describe the proportion of grassland, nontidal and tidal wetland habitat (commensurate with the proposed mitigation ratio) [that] will be managed for breeding waterfowl while also meeting the needs of other species.	Environmental Commitment 9 would restore a portion of degraded vernal pool or alkali seasonal wetland complex, or potentially some grassland habitat, but is not expected to result in the loss of cultivated lands. Additional natural community impacts have been added to the impact discussion. Impacts are analyzed at the natural community level and therefore are an overestimate of potential breeding waterfowl habitat. Habitat will not be managed specifically for breeding waterfowl. However, many of the management actions for other species will create similarly suitable habitat for breeding waterfowl.
2762	192	[Page] 4.3.8-345 [Line] 6-16: Vernal pool complex and alkali seasonal wetland also provide nesting habitat for American avocet (Shuford, Humphrey et al. 2004).	Added reference to VPC and ASW complex use by American avocets to the Final EIR/EIS.
2762	193	[Page] 4.3.8-345 [Line] 10: Killdeer also nests in rice in the Sacramento Valley (Shuford, Humphrey et al. 2004).	Killdeer has been added to the analysis.
2762	194	[Page] 4.3.8-345 [Line] 25-27: [EC 9 could also remove cultivated lands. We [CDFW] suggest discussing these potential impacts, or explaining why they are not included. It is not clear why loss of managed wetlands, grasslands, and tidal/nontidal wetlands is not included in this discussion. If Ecs [environmental commitments] would not remove these habitat types, it should be stated here.]	See response to comment 2762-191.

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2762	195	[Page] 4.3.8-345 [Line] 26-27: Not all 832 acres of restored nontidal marsh will be managed wetland. Natural nontidal wetland will also be restored as part of this commitment, as described on page 4.3.8-346, to benefit other species such as tricolored blackbird. All managed wetland may not meet the specifications for shorebirds. This analysis states the majority of shorebird species require water depths of approximately 10-20 cm for foraging. However, diving ducks require deeper water for foraging and yellow-headed blackbirds require relatively deep water (up to 1.5 m) for nesting (Jaramillo 2008). On the other hand, Ivey, Herziger et al (2014) recommend 10 cm-15 cm for crane roosting habitat, of which about 500 acres of managed wetlands will be created. It is also possible that some giant garter snake aquatic habitat would be suitable. We [CDFW] suggest revising this analysis to more accurately quantify the number of mitigation acres that will be managed in a manner suitable for shorebirds.	The implementation of the Environmental Commitments would result in loss of 2,207 acres of cultivated lands, which would have varying degrees of habitat suitability for shorebirds. The Environmental Commitments result in the protection and management of 11,870 of cultivated lands and 119 acres of nontidal wetlands (ECs 3 and 11) and the restoration of 295 acres tidal wetlands (EC4) and 832 acres of nontidal wetlands (EC10), which would also have varying degrees of habitat suitability for shorebirds. As discussed under Impact BIO-181, Environmental Commitment 11 includes several management actions to benefit shorebirds in managed wetlands and nontidal wetlands. Compared to current conditions in the cultivated lands that would be lost, where there is no management specifically for shorebirds, and considering the 13,116 acres that would be managed specifically for special-status species, as well as shorebirds, it can reasonably be assumed that there would be a net increase in habitat value for shorebirds. It can be assumed that the 415 acres of nontidal marsh that would be created for sandhill cranes would also be suitable for certain shorebird species.
2762	196	[Page] 4.3.8-345 [Line] 31: Please remove references to sandhill crane in this analysis.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	197	[Page] 4.3.8-345 [Line] 37-42: Not all of the cultivated lands impacted will be crops used by the shorebirds, as specified in the paragraph above. American avocets, black-necked stilts, and killdeer mostly use rice, which is rare in the Delta except in the northern Yolo Bypass.	Agreed, but the impact analysis is conducted at the natural community level. Impacts are overestimated using this approach.
2762	198	[Page] 4.3.8-346 [Line] 10-12: [EC 9 could also remove cultivated lands. We [CDFW] suggest discussing these potential impacts, or explaining why they are not included. It is not clear why loss of managed wetlands, grasslands, and tidal/nontidal wetlands is not included in this discussion. If ECs [environmental commitments] would not remove these habitat types, it should be stated here.]	See response to Comment 2762-191.
2762	199	[Page] 4.3.8-346-347 [Lines] 23-41, 1-5: The managed wetland analysis on page 4.3.8-345 assumes that 832 acres of created nontidal wetlands would benefit shorebirds that use managed wetlands. Only 500 acres of this habitat is required to be managed at depths suitable for sandhill crane and shorebirds. The remaining 332 acres of nontidal wetlands may not be managed at the appropriate depth for shorebirds. However, even if the 119 acres of protected nontidal wetlands from EC 3 are included in the analysis, it is unlikely that 832 acres of wetlands will be managed to benefit shorebirds. Please acknowledge and discuss potential conflicts between management for shorebirds and other nontidal marsh species in more detail. For example, managing water depths for shorebirds conflicts with yellow-headed blackbird nesting and diving duck foraging requirements. Please also revise the effects analysis and CEQA conclusion to address these discrepancies.	No tidal marsh, nontidal marsh, or managed wetlands would be directly affected by the restoration actions (Impact BIO 181) and water conveyance facilities would impact 86 acres of tidal marsh, nontidal marsh, and managed wetlands (Impact BIO-178). Of the 832 acres of nontidal marsh created, 415 acres of would be created for sandhill cranes (95 acres within 2 miles of existing crane roost sites and an additional 320 acres within the greater sandhill crane winter use area), which would be suitable for most shorebirds species. Also, some degree of the 119 acres of nontidal wetlands to be protected would be suitable for shorebirds. In addition, 11,870 acres of cultivated lands would be protected and managed for wildlife some of which will also benefit shorebirds (only 1,375 acres of cultivated lands not currently managed for shorebirds would be affected by the Environmental Commitments). As discussed in Impacts BIO-178 and BIO-181, the loss of potential shorebird habitat would be offset by the proposed Environmental Commitments. There is no conflict between management for special-status species and shorebirds. The analysis does demonstrate that effects on shorebirds would be minimal and that there would be net improvement in habitat value in the study area.
2762	200	[Page] 4.3.8-347 [Line] 6-37: We [CDFW] suggest adding a discussion of potential conflicts between management	The EIR/EIS includes Resource Restoration and Protection Principles (see Table 3-12 in Chapter 3 of the EIR/EIS), which provide specific guidance for the protection and restoration of habitat for species such as

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		for shorebirds and other species which rely on cultivated lands. For example, removing stubble after harvest conflicts with waterfowl foraging needs; minimal vegetation adjacent to shallow water or on islands could conflict with GGS [giant garter snake] and CBRA [California black rail] needs for vegetated banks; flooding harvested potatoes conflicts with sandhill crane foraging but is compatible with geese (CFR and TNC In prep); different flooding regimes may be needed for the crane, geese, and/or SWHA [Swainson's hawk] foraging than recommended for shorebirds. If species-specific mitigation could be separated geographically, that would help resolve conflicts, but could be difficult to manage.	giant garter snake and California black rail. Details on the management of specific protection restoration sites will be developed for each conservation area and will be subject to agency review and approval. The compatibility of the management of those lands for shorebirds and waterfowl will be addressed in those individual management plans.
2762	201	[Page] 4.3.8-348 [Line] 14: Also include killdeer.	Chapter 12 of the EIR/EIS was revised based on the recommended change.
2762	202	[Page] 4.3.8-348 [Line] 29: We [CDFW] suggest adding a discussion of nontidal wetland to this CEQA conclusion. There are no impacts to this natural community anticipated, and some wetlands will be protected, restored, and managed for the benefit of the shorebirds. This could offset some of the loss of cultivated lands for those shorebird species that use both (such as killdeer).	The CEQA conclusion does mention that the conversion of cultivated lands to "tidal and nontidal wetlands" would be a loss for some species but would be a gain in the primary habitat of "black-bellied plover, dunlin, least sandpiper, marbled godwit, semipalmated plover, short-billed dowitcher, western sandpiper, and willet."
2762	203	[Page] 4.3.8-348 [Line] 32-38: We [CDFW] suggest adding a more detailed discussion of transmission line impact risk. Shorebirds and waterfowl are particularly vulnerable to power line strikes due to wing loading and flocking behavior (Brown and Drewien 1995, Yee 2007, APLIC [Avian Power Line Interaction Commission] 2012). Brown and Drewien (1995) found that waterfowl constituted approximately 50% of transmission line strike mortality of all birds studied. We suggest discussing results of studies that show avian markers decreased mortality of waterfowl and shorebirds, and studies that found that American coots were still vulnerable to power line strike mortality after marker installation (Yee 2007, VWS [Ventana Wildlife Society 2015). To reduce risks to nocturnal flyers, such as coots, diverters should be illuminated (VWS 2015).	The EIR 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. The final transmission line design will be determined in consultation with the wildlife agencies and wildlife agency–approved, qualified biologist familiar with crane biology.
2762	204	[Page] 4.3.8-349 [Line] 41-44: Please explain why largemouth bass was used as a surrogate species. Why it is considered more conservative than shorebirds and waterfowl, or other fish-eating species such as diving ducks and terns? Ackerman, Eagles-Smith et al. (2014) indicate that fish Hg [mercury] concentrations did not adequately predict avian risk to exposure, and that egg monitoring more accurately reflects the impacts of Hg on birds. They found MeHg [methylmercury] concentrations in many adults and eggs in the San Francisco Bay estuary exceeded levels of toxicity. We [CDFW] suggest discussing the results of this study and adding an adaptive management strategy that includes monitoring mercury levels in shorebird and waterfowl eggs.	Larger, piscivorous resident fish, in general, provide a good record of fish tissue mercury as a baseline condition for the Delta. Largemouth bass were chosen because they are popular sport fish, top predators, live for several years, and tend to stay in the same area (exhibit high site fidelity). Consequently, they are excellent indicators of long-term average mercury exposure, risk, and spatial pattern for ecological and human health.
2762	205	[Page] 4.3.8-350 [Line] 4: The risk of mercury exposure varies among shorebird species and locations. Shorebirds that forage on fish and in managed wetlands in Yolo Bypass or Suisun Marsh are at a higher risk than other shorebirds. Ackerman, Eagles-Smith et al. (2014) provide an	The analysis does note that bioaccumulation of mercury varies by species.

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		example of elevated concentrations of methylmercury in black-necked stilts due to foraging in managed wetlands and on fish.	
2762	206	[Page] 4.3.8-351 [Line] 16-17: There is no EC 5 described in Section 4.1.2.3. Please revise to clarify this sentence and add a reference to nontidal restoration, EC 10.	This has been revised in the Final EIR/EIS.
2762	207	[Page] 4.3.8-352 [Line] 17: We [CDFW] suggest adding tidal habitat, nontidal habitat, and floodplain restoration to this sentence as agents of increased selenium exposure. Waterfowl that consume sessile bivalve clams and other benthic filter feeders would be exposed to additional, and potentially toxic, levels of selenium. Without AMM27 this would constitute a significant impact.	The main source of selenium exposure would be from water coming from the San Joaquin River. Nontidal wetlands that would be restored would rely on existing networks of irrigation ditches in Conservation Zones 1, 2, 4, and/or 5, which would not be relying on the San Joaquin River as a source of water. Floodplain restoration would not occur under Alternative 4A. AMM27 is included in the discussion of impacts on waterfowl and shorebirds.
2762	208	[Page] 4.3.25-8 [Line] 38: Because Section 4.3.25 does not generally rise to the level of analysis, the use of the phrase "analyze and disclose" is not appropriate. Consider substituting the phrase "discuss conceptually."	The Final EIR/EIS does analyze and disclose how the action alternatives affect the Plan Area's resiliency and adaptability to expected climate change. The analysis presented in the RDEIR/SDEIS refers the reader to the Draft EIR/EIS for more detail and in depth analysis.
2762	209	[Page] 4.3.25-9 [Line] 19: The sentence beginning here seems to turn the operating concept for the California WaterFix on its head. In reality, diversions at the proposed NDDs [north Delta diversions] will only be allowed if Sacramento River inflows are adequate to protect downstream species habitat and water quality conditions. This is an important concept to ensure that the water operations "flexibility" afforded by the proposed NDDs is not used to the detriment of Delta aquatic species.	The following sentence was added to the discussion: Diversions at the proposed NDDs [north Delta diversions] would be allowed if Sacramento River inflows are adequate to protect downstream species habitat and water quality conditions.
2762	210	[Page] 4.3.25-9 [Line] 28: Here the document makes confusing use of the term "entrapment zone." Biologists generally use this term to describe the estuary's saltwater/freshwater interface. For the purposes of this comment it is assumed that the author is referring to something like the "zone of entrainment." It is important to note here that the purpose positioning X2 further downstream goes beyond reducing entrainment. For species such as Delta smelt, longfin smelt, and Crangon franciscorum downstream positioning of X2 increases the quantity and quality of habitat, and improves transport to that habitat. The relative ease of using inflows to move saltwater downstream from the proposed NDDs [north Delta diversions] would probably result in a constriction of habitat for some species, in particular Delta smelt rearing in the important lower Sacramento River reach (below Rio Vista).	The commenter is correct in surmising that the intended meaning of the use of the phrase 'entrapment zone' was 'entrainment zone', essentially, the area under the hydraulic influence of the south Delta export facilities. The comments regarding habitat and X2 are acknowledged; analyses in the EIR/EIS assess the effects of flow on X2-related habitat (e.g., fall abiotic habitat for delta smelt based on the method of Feyrer et al. 2011). For more information regarding the impacts to Delta Smelt please see Master Response 17.
2762	211	[Page] 4.3.25-9 [Line] 37: The ECs [environmental commitments] remaining in the California WaterFix are generally designed to mitigate for project related impacts. As such, and unlike the BDCP, they don't result in a net gain in habitat quantity or quality.	The commenter states that the California Water Fix, compared to the BDCP, does not result in a net gain in habitat quantity or quality. Alternative 4A (California WaterFix) is a project with environmental commitments to minimize and offset effects of the project and the BDCP is an HCP/NCCP, which does have a larger amount of restoration and protection because the BDCP is 50 year plan with a goal of contributing to the recovery of covered species. Much of the restoration that is part of the BDCP would now be completed under the separate California EcoRestore. Under EcoRestore, the state will pursue restoration of more than 30,000 acres of fish and wildlife habitat by 2020. These habitat restoration actions will be implemented

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			faster and more reliably by separating them from the water conveyance facility implementation.
2762	212	[Page] 4.3.25-9 [Line] 42-45: Because Alternative 4A seeks authorization for take of state and federally listed species through a 2081(b) permit and Section 7 Biological Opinion, the project proponents are required under section 2081(b) to ensure impacts of the authorized taking are minimized and fully mitigated. A mitigation standard differs substantially from the standard underlying Alternative 4, and established by the Natural Community Conservation Planning Act [NCCPA], to conserve and manage covered species within the Plan area. Although the NCCPA's standard may be sufficient to facilitate species resiliency to climate change, habitat restoration and preservation proposed in Alternative 4A is not sufficient.	DWR and Reclamation are pursuing the Section 7 and 2081 permits for Alternative 4A. These permitting processes, along with others such as CWA 404 and 408, will ultimately govern the total amount of restoration required for the CWF. The EIR/EIS discusses the effects of the project and determines whether the proposed mitigation is sufficient to mitigate effects to less than significant under CEQA. There is no requirement to facilitate a species resiliency to climate change. See response to comment 2762-211 for more information on the restoration being undertaken under EcoRestore.
2762	213	[Page] 4.3.25-10 [Line] 3-11: We [CDFW] suggest removing this paragraph because it is based on general conclusions that are unsupported by current ecological and evolutionary theory. Many environmental factors (abiotic and biotic) limit the distribution and abundance of native species. The assumption that ameliorating one specific stressor on a listed species in the Delta will result in increased population sizes is speculative and unfounded. Additionally, although population size can be an important factor in determining species resiliency in response to environmental change, the capacity of a species to express adaptive phenotypic plasticity and the level of genetic variation within and among populations are more important determinants of species persistence over the short and long term. Increasing genetic variation within and among populations of threatened and endangered species would require, at a minimum, sustained long-term increases in population sizes across many generations.	This paragraph has been edited in Chapter 29, Climate Change, in the FEIR/FEIS.
2762	214	[Page] 4.3.25-10 [Line] 8: Predator control at the NDDs [north Delta diversions] is intended as mitigation, not enhancement, to offset the predation problems otherwise created by the presence of the NDDs. Also, the benefit of predator control at CCF [Clifton Court Forebay] is easily overstated, because the south Delta export facilities will often not be operating winter-spring entrainment season, and the period of preferential southern diversion is generally after the entrainment season.	The text has been revised to focus on the benefit provided by reduced south Delta exports.
2762	215	[Page] 4.3.25-10 [Line] 9: The use of the term "will" here is too optimistic. At this point the net benefits of the NPB [non-physical barrier] are still uncertain.	This sentence has since been removed from the Climate Change chapter (Chapter 29) of the Final EIR/EIS.
2762	216	[Page] 4.3.25-10 [Line] 17: Are the 'interties' referenced part of the project? If not, their suggested use is speculative.	The text in this section is referring to existing interties in the Delta. Alternative 4A does not include new interties though other alternatives and operational scenarios do.
2762	217	[Page] 4.3.8-150 [Line] 17-19: Comment on administrative draft: Refer to the habitat model developed in Chapter 12,	The initial response to CDFW's comment on the administrative draft was not entirely correct. However, as stated in the species description, lesser sandhill cranes do forage in slightly different areas than greater sandhill crane, as discussed in Section 12.1.3, the foraging habitat types are consistent with greater sandhill crane but the assigned values of those crops and the distances traveled by the subspecies does differ. Also,

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		Alternative 4, for lesser sandhill crane foraging habitat and use area. [Characterization of ICF Response]: Not addressed. ICF stated the model is the same for both subspecies. The BDCP model for GSCR [greater sandhill crane] (Appendix 3A) is not the same as the LSCR [lesser sandhill crane] model (Figure 12-22). The LSCR model shows foraging habitat as far south as CCF [Clifton Court Forebay], while the GSCR model cuts foraging habitat to north of Discovery Bay. Neither model depicts "roosting and foraging" separate from "foraging."	the two subspecies use the same roosting habitat but lesser sandhill crane has a larger wintering range, which is reflected in Figure 12-22. No specific changes were requested in this comment and no changes were made to the text.
2762	218	[Page] 4.3.8-151 [Line] 27: Comment on administrative draft: Be sure foraging habitat impacts are analyzed against the lesser crane model and not the greater crane model. There should be a different number here based on the additional foraging habitat south of the GSCR [greater sandhill crane] foraging habitat and winter use area, as far south as Clifton Court Forebay. [Characterization of ICF Response]: Partially addressed. ICF stated that the impacts analysis uses the LSCR [lesser sandhill crane] model, limited to the crane use area, and that the impact analysis focuses on the area where cranes are present. Gary Ivey's "crane use area" is depicted as the GSCR winter use area in BDCP Appendix 3A. It is not clear where the LSCR crane use area is, as delineated by G. Ivey, and if it matches the foraging habitat model in Figure 12-22. Please explain if this analysis is based on the LSCR winter use area. Impacts to foraging habitat for both subspecies are not the same, due to LSCR foraging a greater distance from roosting sites than GSCR. The numbers reflect higher impacts for LSCR foraging habitat, but this is not well explained.	The extent of the lesser sandhill crane model was informed by the use areas provided by Gary Ivey. As shown in the analysis, the impacts to lesser sandhill crane are slightly larger than they are for greater sandhill crane. The discussion of lesser sandhill crane in Section 12.1.3 and the comparison of Figures 12-21 and 12-22 does state and show, respectively, that lesser sandhill cranes cover a larger area in the Delta.
2762	219	[Page] 4.3.8-152-153 [Line] 35-46, 1-13: Comment on administrative draft: Impacts described appear to be confined to the greater sandhill crane use area and do not include impacts south of the area in the modeled foraging habitat for lesser sandhill crane. We [CDFW] suggest updating this analysis to include impacts south of Venice Island. [Characterization of ICF Response]: Partially addressed. ICF response: "impacts are for lesser sandhill crane use area which is very similar to GSHC [greater sandhill crane] boundary but there is more foraging habitat impacted by the conveyance facility because of the increased foraging distance from roost sites." Follow up comment: We suggest adding a reference to the LSCR [lesser sandhill crane] use area and clarifying how "roosting and foraging" habitat differs from "foraging" in the LSCR model (e.g., if "roosting and foraging" is restricted to the GSCR [greater sandhill crane] use area or if it contains only mapped roost sites). This section does not describe impacts from roads, access shafts, transmission lines, or geotech on Mandeville and Bacon Islands, which overlap modeled foraging habitat in both subspecies models, but not roosting habitat. This analysis is still incomplete without a clear description of what is being analyzed.	Both subspecies models are restricted to the sandhill crane winter use area which supports the majority of the cranes in the Delta (Ivey pers comm). This boundary was originally referred to as the greater sandhill crane winter use area because greater sandhill crane is a covered species in the draft BDCP. Therefore greater sandhill crane use area is referred to for conservation measures and environmental commitments. Within the sandhill crane use area. The roosting and foraging modeled habitat (roost sites which also provide foraging value) is identical for both species. Within the sandhill crane winter use area, the greater sandhill crane foraging habitat model consists of suitable foraging habitat within 2 miles of roosting sites. The lesser sandhill crane foraging habitat model consists of suitable foraging habitat within 4 miles of roosting sites. Details were added to the sandhill crane winter use area and modeled habitat for the subspecies in the introductory paragraph. Added additional detail to footprint impacts on lesser and greater sandhill crane modeled habitat.
2762	220	[Page] 4.3.8-153-154 [Line] 18-25, 1-10: Comment on administrative draft: Table 12-4A-31. Update these numbers based lesser sandhill crane [LSCR] foraging habitat model, not greater sandhill crane [GSCR or GSHC]	Please see response to comment 2762-219.

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		model. [Characterization of ICF Response: Partially addressed. ICF stated that the impacts analysis uses the LSCR model, limited to the crane use area, and that the impact analysis focuses on the area where cranes are present. Gary Ivey's "crane use area" is depicted as the GSCR winter use area in BDCP Appendix 3A. It is not clear where the LSCR crane use area is, as delineated by G. Ivey, and if it matches the foraging habitat model in Figure 12-22. Please explain if this analysis is based on the LSCR winter use area. Impacts to foraging habitat for both subspecies are not the same, due to LSCR foraging a greater distance from roosting sites than GSCR. The numbers reflect higher impacts for LSCR foraging habitat, but this is not well explained. "Impacts are for lesser sandhill crane use area which is very similar to GSHC boundary but there is more foraging habitat impacted by the conveyance facility because of the increased foraging distance from roost sites." Follow up comment: We suggest adding a reference to the LSCR use area and clarifying how "roosting and foraging" habitat differs from "foraging" in the LSCR model (e.g., if "roosting and foraging" is restricted to the GSCR use area or if it contains only mapped roost sites). This section does not describe impacts from roads, access shafts, transmission lines, or geotech on Mandeville and Bacon Islands, which overlap modeled foraging habitat in both subspecies models, but not roosting habitat. This analysis is still incomplete without a clear description of what is being analyzed.]	
2762	221	[Page] 4.3.8-154-155 [Line] 40-43, 1-2: Comment on administrative draft: Table 12-4A-31. Update these numbers based lesser sandhill crane [LSCR] foraging habitat model, not greater sandhill crane [GSCR or GSHC] model. [Characterization of ICF Response: Partially addressed. ICF stated that the impacts analysis uses the LSCR model, limited to the crane use area, and that the impact analysis focuses on the area where cranes are present. Gary Ivey's "crane use area" is depicted as the GSCR winter use area in BDCP Appendix 3A. It is not clear where the LSCR crane use area is, as delineated by G. Ivey, and if it matches the foraging habitat model in Figure 12-22. Please explain if this analysis is based on the LSCR winter use area. Impacts to foraging habitat for both subspecies are not the same, due to LSCR foraging a greater distance from roosting sites than GSCR. The numbers reflect higher impacts for LSCR foraging habitat, but this is not well explained. "Impacts are for lesser sandhill crane use area which is very similar to GSHC boundary but there is more foraging habitat impacted by the conveyance facility because of the increased foraging distance from roost sites." Follow up comment: We suggest adding a reference to the LSCR use area and clarifying how "roosting and foraging" habitat differs from "foraging" in the LSCR model (e.g., if "roosting and foraging" is restricted to the GSCR use area or if it contains only mapped roost sites). This section does not describe impacts from roads, access shafts, transmission lines, or geotech on Mandeville and Bacon Islands, which overlap modeled foraging habitat in both subspecies models, but not roosting habitat. This analysis is still incomplete without a clear description of what is being analyzed.]	Please see response to comment 2762-219.
2762	222	[Page] 4.3.8-155 [Line] 7:	GSC1 was modified to say that at foraging habitat will be protected at a minimum of 1:1 yet be based on the

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		Comment on administrative draft: This number would change if impacted foraging acres are adjusted. Need to ensure restoration/protection still meets or exceeds the 1:1 mitigation requirement for foraging habitat. [Characterization of ICF Response]: If 4811 acres of foraging habitat will be protected for both subspecies [lesser sandhill crane and greater sandhill crane] based on impacts to LSCR [lesser sandhill crane] foraging habitat, this would meet the proposed 1:1 mitigation for LSCR. [Partially addressed. Page 146, line 38 was not updated to 4811 for LSCR or for GSCR [greater sandhill crane] on page 132, line 34. Restoration and Performance Principle GSC1 does not specify acreage. If 4811 acres of foraging habitat will be protected, the change needs to be cascaded to these sections.]	total impacts to lesser sandhill crane impacts so as to cover both species.
2762	223	[Page] 4.3.8-155 [Line] 39: Comment on administrative draft: This number needs to be consistent with the number in the greater sandhill crane section [GSCR]; the greater section probably needs to be updated. [Characterization of ICF Response]: Partially addressed. Page 146, line 38 was not updated to 4811 for LSCR [lesser sandhill crane] or for GSCR on page 132, line 34. Restoration and Performance Principle GSC1 does not specify acreage. If 4811 acres of foraging habitat will be protected, the change needs to be cascaded to these sections.	Numbers were updated based on revisions made to GSC1, which now requires protection to occur at 1:1.
2762	224	[Page] 4.3.8-157 [Line] 3: Comment on administrative draft: Include "and AMM30 Transmission Line Design and Alignment Guidelines." [Characterization of ICF Response]: Not addressed. ICF response: "Included AMM30." Reference to AMM30 does not appear in this section.	The commenter requests that AMM30 Transmission Line Design and Alignment Guidelines is referred to under Impact BIO-73 Effects on Lesser Sandhill Crane Associated with Electrical Transmission Line Facilities. Although AMM30 includes text which restricts the placement of transmission lines in sensitive habitats where feasible and minimizing effects on greater sandhill crane habitat, AMM20 provides more specific language and more stringent restrictions regarding placement of transmission lines to reduce impacts on sandhill cranes, including consultation with wildlife agencies on final transmission line design.
2762	225	[Page] 4.3.8-157 [Line] 19: Comment on administrative draft: Remove the word "dramatically." [Characterization of ICF Response]: Not addressed; global comment.	Chapter 12 of the EIR/EIS was revised based on the recommended change.
2762	226	[Page] 4.3.8-158 [Line] 39-40: Comment on administrative draft: Also discuss benefits of implementing AMM 30 here. [Characterization of ICF Response]: Not addressed. ICF response: "added AMM30." AMM30 is not referenced in the CEQA conclusion.	Added AMM30 to impact discussion and CEQA conclusion in the Final EIR/EIS.
2762	227	[Page] 4.3.8-163: Comment on administrative draft: There should be an inundation section for this species [lesser sandhill crane] even though there are no impacts, for consistency with other species.	We have carried forward the same impact headings across all alternatives in order to keep the numbering consistent. For the action alternatives, where there are impacts from periodic inundation, we only identified this impact if there truly was an impact to the species so there are cases for Alt 4A where we don't have these identified for species such as the cranes.

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		[Characterization of ICF Response]: Partially addressed. Throughout the document inundation impact headers are not included where there are no impacts anticipated. Those sections need to be removed to provide consistency.	
2762	228	[Page] 4.3.8-165 [Line] 35: Comment on administrative draft: AMMs [avoidance and minimization measures] are not described below; they are listed below. They are described in Appendix 3.C of the draft BDCP and in Appendix D. [Characterization of ICF Response]: Not addressed. It is still not clear in this section which AMMs are being referred to for O&M [operations and maintenance].	The comment raises issue with the location of the descriptions of AMMs.
2762	229	[Page] 4.3.8-165 [Line] 36-38: Comment on administrative draft: There should be a discussion here about yellow warbler nesting in the study area as well. The BSSC [Bird Species of Special Concern] account (Heath 2008) states the species is largely extirpated as a breeder in the Delta; however, nests were found in the SJRNWR [San Joaquin River National Wildlife Refuge] in 2002 and 2003. Therefore, reestablishment of a breeding population of yellow warbler is also possible. [Characterization of ICF Response]: Partially addressed. ICF response: "Possible but unlikely over the new permit term. Added text to clarify." Text was changed to clarify. However, we [CDFW] suggest acknowledging the possibility of at least one breeding pair of either species [yellow warbler or least Bell's vireo] occurring during the project term, rather than assuming such presence is unlikely. Many sources imply riparian restoration could bring in one or more breeding pair(s) of either species (USFWS 2005, Heath 2008). The LBVI [least Bell's vireo] detections in the Yolo Bypass were singing males, and the CALFED program considered these detections a result of successful restoration.	Though the analysis says that reestablishment of breeding pairs is unlikely, it does still acknowledge the potential for an impact to nesting yellow warblers and least Bell's vireo and notes that AMM22 and Mitigation Measure BIO-75 would be available to avoid and minimize effects on nesting. No change was made in response to this comment.
2762	230	[Page] 4.3.8-168 [Line] 9-12: Comment on administrative draft: Even if one [yellow warbler or least Bell's vireo] pair breeds, fragmentation of habitat can cause edge effects such as exposure to cowbird parasitism, a major threat to both species. This should be discussed here. It is not clear why fragmentation would have a minimal effect if there are only a small number of individuals. If there is one breeding pair and fragmentation causes that nest to fail, this is not a minimal effect on a species that is considered extirpated from the Delta and is starting to return. This conclusion could be made if AMM 20 and/or MM BIO-75 adds a measure that nests will be monitored post construction where fragmentation has occurred, and appropriate actions will be taken to minimize resulting edge effect (e.g., cowbird control). [Characterization of ICF Response]: Partially addressed. The cowbird problem was addressed and language suggested [by CDFW] was added. We still suggest to delete the sentence that assumes a small number of occurrences would qualify the fragmentation impact as a low effect on the species for the reasons described in this comment (i.e., impacting reestablished breeding in the Delta could prevent the species' range expansions and recovery). The implementation of AMMs [avoidance and minimization measures], BIO-75 and adaptive management described thereafter would	Chapter 12 of the EIR/EIS was revised based on the recommended change.

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		minimize the impacts.	
2762	231	[Page] 4.3.8-168 [Line] 32-38: Comment on administrative draft: According to the valley/foothill riparian natural community impact analysis, Valley/foothill riparian will be restored primarily in CZ 4 and CZ 7 in the Cosumnes/Mokelumne and South Delta ROAs [restoration opportunity areas]. The transmission lines to be installed along the tunnel alignment south of Lambert Road and from the Intermediate Forebay to RTM [reusable tunnel material area] overlap the Cosumnes/Mokelumne ROA, and birds attracted by this restoration could be affected. The reasons discussed here do not make collision with transmission lines highly unlikely. The bird strike analysis for least Bell's vireo [LBVI] should be discussed instead and inferred for yellow warbler, as well as the effectiveness of diverters installed for greater sandhill crane. [Characterization of ICF Response]: Partially addressed. Language was updated per this comment, but states lack of occurrences as one of the reasons strikes are unlikely. The recent LBVI occurrence data imply LBVI could be present in the Delta but undetected. We [CDFW] suggest omitting this reasoning and instead focusing on each species' use of habitat, behavior, and diverters. It should also be noted that at least one study indicated yellow warbler and other species of vireos were found dead under powerlines (EPRI 2003), so strikes are not "highly unlikely." Strikes may be minimized by the birds' behaviors, and would be further minimized if powerline right-of-ways provide a buffer from the riparian habitat.	AMM20 in its entirety appears in Appendix 3B of the EIR/EIS and is applicable to all alternatives considered in the EIR/EIS, including Alternatives 4 and 4A. 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: • 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. • Underground new lines in high-risk zones of the greater sandhill crane winter use area. • 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 all new lines. 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 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. • Final transmission line design will be determined in coordination with the wildlife agencies and wildlife agency–approved, qualified biologist familiar with crane biology, to achieve the performance standard and ensure the measures described herein are incorporated. 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. A bird-strike analysis was conducted for multiple species as part of the BDCP which concluded that birdstrike

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			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 is expected to reduce the risk of birdstrike on avian species to a less-than-significant impact.
2762	232	[Page] 4.3.8-169 [Line] 3-7: Comment on administrative draft: [Also discuss benefits of implementing AMM 30 here.] [Characterization of ICF Response]: Partially addressed. [Language was updated per this comment, but states lack of occurrences as one of the reasons strikes are unlikely. The recent LBVI [least Bell's vireo] occurrence data imply LBVI could be present in the Delta but undetected. We [CDFW] suggest omitting this reasoning and instead focusing on each species' use of habitat, behavior, and diverters. It should also be noted that at least one study indicated yellow warbler and other species of vireos were found dead under powerlines (EPRI 2003), so strikes are not "highly unlikely." Strikes may be minimized by the birds' behaviors, and would be further minimized if powerline right-of-ways provide a buffer from the riparian habitat.]	Chapter 12 of the EIR/EIS was revised based on the recommended change. Removed lack of occurrences from rationale. Revised "highly unlikely" to "unlikely". Added reference to AMM30 avoiding sensitive terrestrial habitats.
2762	233	[Page] 4.3.8-295 [Line] 25: Comment on administrative draft: Since the BDCP conservation strategy isn't part of Alternative 4A, this sentence should point to the corresponding EC(s) [environmental commitments]. [Characterization of ICF Response]: Not addressed. ECs and RRPPs [resource restoration and protection principles] are described in this chapter. This section should not reference Chapter 3 of the draft BDCP. The ECs and RRPPs need to ensure the same goals of the conservation strategy.	Page 4.3.8-295, Line 25 is the impact heading for Suisun Shrew. It is unclear exactly what this comment is on.
2762	234	[Page] 4.3.8-296, 297 [Lines] 35-36, 1-8 Comment on administrative draft: In this paragraph, badgers need to be included in the discussion. Passive recreation could result in disturbance of San Joaquin kit foxes and American badgers at their den sites, particularly natal sites (Kirks 2015), and close contact with an aggressive badger could be a threat to human safety. Though disease from domestic dogs may not be an issue, we [CDFW] suggest updating AMM37 Recreation so that trails are buffered from active San Joaquin kit fox and badger dens (BDCP Appendix 3.C, page 83, lines 1-3) to minimize disturbance and human encounters. We also suggest prohibiting rodent control when either species is present. Restrictions need to be discussed for both species to state that recreation effects will be minimal for both species. [Characterization of ICF Response]: Partially addressed. Though the language here and ICF's response indicate a modification to AMM37, the modification does not show up in Appendix D to include badger dens.	The document states that "Alternative 4A would include the following environmental commitments and associated Resource Restoration and Performance Principles to benefit the San Joaquin kit fox which would also benefit American badger which uses similar habitat (see Chapter 3, Conservation Strategy, of the Draft BDCP)." So no additional language is necessary on page 4.3.8-296 or 297. AMM 37 includes: San Joaquin kit fox. New trails will be prohibited within 250 feet of active kit fox dens. Trails will be closed within 250 feet of active natal/pupping dens until young have vacated, and within 50 feet of other active dens. No dogs will be allowed on properties with active kit fox populations. Rodent control will be prohibited even on grazed or equestrian-access areas with kit fox populations. 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.
2762	235	[Page] 4.3.8-297 [Line] 15-18: Comment on administrative draft: AMMs 10 and 24 and MM BIO-162 are specific to construction activities and do not explicitly include measures for post-construction	Mitigation measure BIO-162 has been updated to say "Mitigation Measure BIO-162 is applicable to all ground disturbing activities related to construction, restoration, and operations and maintenance."

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		activities such as ongoing maintenance and operations. These need to be updated or not relied upon for minimization because the kit fox or the badger could appear after construction is completed, particularly if attracted by restoration of habitat. [Characterization of ICF Response]: Partially addressed. ICF response: "The AMMs [avoidance and minimization measures] apply to all covered activities which includes construction, maintenance and operations, and restoration and recreation. No edits needed." This is described in BDCP public draft Appendix 3.C.1. Section 4.1.23 states AMMs under Alternative 4A are consistent with the approach described in Appendix 3.C. We [CDFW] suggest updating BIO-162 to refer to all project activities. This may be a global comment for all MMs [mitigation measures].	
2762	236	[Page] 4.3.8-297 [Line] 23-26: Comment on administrative draft: [CDFW's] suggestions in comments [for page 4.3.8-297, lines 1-8 and page 4.3.8-297, lines 15] should be considered for Substantive BDCP revisions in Appendix D to update AMMs 37, 10 and 24 and for an update to MM BIO-162 before these can be relied upon as measures that minimize mortality. [Characterization of ICF Response: Partially addressed. Though the language here and ICF's response indicate a modification to AMM37, the modification does not show up in Appendix D to include badger dens. ICF response: "The AMMS [avoidance and minimization measures] apply to all covered activities which includes construction, maintenance and operations, and restoration and recreation. No edits needed." This is described in BDCP public draft Appendix 3.C.1. Section 4.1.23 states AMMs under Alternative 4A are consistent with the approach described in Appendix 3.C. We suggest updating BIO-162 to refer to all project activities. This may be a global comment for all MMs [mitigation measures].]	See response to comment 2762-235.
2762	237	[Page] 4.3.8-298 [Line] 12-21: Comment on administrative draft: American badger needs to be included in these discussions as well. The modeled San Joaquin kit fox [SJKF] habitat is also likely to represent suitable habitat for the badger. Lines 16-17 should not refer to an SJKF satellite population because there is no confirmed population in this area. This should be changed to existing suitable habitat in Contra Costa County. The mitigation in lines 19-21 would also benefit the badger. [Characterization of ICF Response]: Not addressed. ICF response: "some edits made; there is a population in Contra Costa County, and it would be considered a satellite."	The commenter requests that the American badger be included in discussions along with the San Joaquin kit fox. The impact analysis for fox and badger has been modified for the Final EIR/EIS and now states several times that the two species occur in the same habitat and locations within the plan area and that the analysis includes both species.
2762	238	[Page] 4.3.8-298, 299 [Lines] 41-44, 1-4: Comment on administrative draft: This CEQA conclusion can only be made for both species [San Joaquin kit fox and American badger] if suggested changes in [CDFW's] comments [for page 4.3.8-297, lines 1-8 and page 4.3.8-297, lines 15] are made. [Characterization of ICF Response: Partially addressed. Though the language here and ICF's response indicate a modification to AMM37, the modification does not show up in Appendix D to include badger dens. ICF response: "The AMMS [avoidance and minimization measures] apply to all covered activities which includes construction, maintenance and operations, and restoration and recreation. No edits needed." This	Mitigation Measure BIO-162 was amended to include a statement that says: "Mitigation Measure BIO-162 is applicable to all ground disturbing activities related to construction, restoration, and operations and maintenance."

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		is described in BDCP public draft Appendix 3.C.1. Section 4.1.23 states AMMs under Alternative 4A are consistent with the approach described in Appendix 3.C. We suggest updating BIO-162 to refer to all project activities. This may be a global comment for all MMs [mitigation measures].]	
2762	239	[Page] 4.3.8-299 [Line] 5-12: Comment on administrative draft: A description of post-construction monitoring, relocation, and avoidance needs to be included. Avoiding an active [badger] den should be achieved with a buffer, as in AMM 24. [Characterization of ICF Response]: Partially addressed. Addressed by stating surveys will be concurrent with SJKF [San Joaquin kit fox] and BUOW [burrowing owl] surveys. However, the size of the buffer was not specified. AMM24 provides a buffer for known SJKF dens of 100 feet. We suggest using the same buffer for American badger and San Joaquin kit fox, or allowing badger buffer distance to be determined by a qualified biologist.	Mitigation measure BIO-162 includes avoidance of dens and the establishment of buffers as determined by a qualified biologist, the collapsing of dens determined to be vacated, and other measures to avoid affecting the species.
2762	240	[Page] 4.3.8-299 [Line] 19-22: Comment on administrative draft: Ground squirrel control would degrade the value of SJKF [San Joaquin kit fox] and badger habitat by reducing prey and burrows. This should be discussed here. [Characterization of ICF Response]: Partially addressed. Should be contingent on presence of individual SJKF or badger, rather than the presence of populations. Ground squirrels would help a population become established.	Commenter stated that ground squirrel control would degrade the value of kit fox and badger habitat. Ground squirrel control will not occur in areas where there are fox and badger populations.
2762	241	[Page] 4.3.8-299 [Line] 34-41: Comment on administrative draft: [This CEQA conclusion can only be made for both species [San Joaquin kit fox and American badger] if suggested changes in [CDFW's] comments [for page 4.3.8-297, lines 1-8 and page 4.3.8-297, lines 15] are made.] [Characterization of ICF Response: Partially addressed. Though the language here and ICF's response indicate a modification to AMM37, the modification does not show up in Appendix D to include badger dens. ICF response: "The AMMS [avoidance and minimization measures] apply to all covered activities which includes construction, maintenance and operations, and restoration and recreation. No edits needed." This is described in BDCP public draft Appendix 3.C.1. Section 4.1.23 states AMMs under Alternative 4A are consistent with the approach described in Appendix 3.C. We suggest updating BIO-162 to refer to all project activities. This may be a global comment for all MMs [mitigation measures].]	Mitigation Measure BIO-162 was amended to include a statement that says: "Mitigation Measure BIO-162 is applicable to all ground disturbing activities related to construction, restoration, and operations and maintenance."
2762	242	[Page] 4.3.8-300: Comment on administrative draft: There are no discussions on methylmercury exposure (badgers prey on birds as well as small mammals), fragmentation, or inundation. Even if these are not impacts, they should be discussed for consistency with other species' impacts analyses. [Characterization of ICF Response]: Partially addressed. ICF response: "there are no	There will be no restoration activities in habitat for San Joaquin kit fox or American badger that would result in methylmercury exposure to these species. Any indirect exposure through the food chain from birds is possible but would be remote.

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		effects on badger or fox from methylmercury." Although ICF's response indicates that there is no impact, no discussion of potential impacts is included. Leaving methylmercury out of the indirect effects impact for these species is reasonable. However, several analyses of other species with no anticipated impacts from methylmercury are included. For example, the "Periodic Effects of Inundation" sections conclude that there will be no effect from methylmercury. We [CDFW] are suggesting consistency in this regard.	
2762	243	[Page] 4.3.8-95, [Line] 43; [Page] 4.3.8-96, [Lines] 21, 34: Comment on administrative draft: AMM 13 from the BDCP Appendix 3C will need to be updated to be consistent with language agreed upon by the TTT [acronym unknown]. [Characterization of ICF Response]: ICF response: "Information not available at this time." Please update as possible for the final draft.	AMM 13 is sufficient to address avoidance and minimization needs with the level of detail available for the water conveyance facilities and restoration activities. Measures that will be developed under future permits and individual restoration projects, which will have their own review, will likely have more specific details, but the level of commitment currently presented in AMM13 is considered to be sufficient for this level of analysis.
2762	244	[Page] 4.3.8-97 [Line] 30-32 Comment on administrative draft: There will need to be an updated version of AMM 13 as well, based on what was agreed upon in TTT [acronym unknown]. [Characterization of ICF Response]: ICF response: "Information not available at this time." Please update as possible for the final draft.	See response to comment 2762-243.
2762	245	[Page] 4.3.8-98 [Line] 9: Comment on administrative draft: The USFWS Bay Area programmatic requires minimization of indirect effects from light, within a 1,000-ft. buffer, which could result in increased likelihood of injury of mortality due to desiccation and predation. This needs to be discussed in more detail here and the minimization buffer needs to be added to AMM13. [Characterization of ICF Response]: ICF response: No permanent night lighting, minimal if any impact. We [CDFW] suggest restricting the use of all night lighting, permanent or temporary, which would illuminate adjacent suitable CTS [California tiger salamander] habitat.	The applicant is not seeking coverage under the USFWS 2014 Programmatic Biological Opinion for impacts on California tiger salamander in Bay Area counties. That document does include a measure for construction site management practices regarding lighting, which says "Night lighting of ESAs (environmental sensitive areas) should be avoided". AMM13 has been amended to say that in areas of suitable upland habitat "Earthmoving and construction activities will cease no less than 30 minutes before sunset and will not begin again until no less than 30 minutes after sunrise. Except when necessary for driver or pedestrian safety, artificial lighting at a worksite will be prohibited during the hours of darkness. Where lighting is necessary, lighting will be directed inwards towards the construction footprint and will not be cast on California tiger salamander habitat outside of the construction area."
2762	246	[Page] 4.3.8-334 [Line] 10: Comment on administrative draft: Breeding shrikes have the status of species of special concern. Breeding shrikes also need shrubs and tall trees for perching and for nest placement, and are generally associated with riparian edge grasslands (Humple 2008) or grasslands/cultivated lands with trees and shrubs present. Impacts to this habitat are the most important to analyze over foraging habitat without the shrub and tree component. [Characterization of ICF Response]: Partially addressed. ICF response: Can't re-run model but text was revised in accordance with this comment. It now states "Loggerhead shrike modeled habitat is overestimated as it does not differentiate between lands with or without associated nesting vegetation." We [CDFW] suggest adding "nesting and perching vegetation and structures" to this	Added recommended language to sentence describing model which now reads "Loggerhead shrike modeled habitat is overestimated as it does not differentiate between lands with or without associated nesting vegetation or nesting and perching vegetation structures." Added low value habitat category in response to a 2013 agency request.

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		sentence. Other structures (fences, poles) can be used for perching. Though the model does not differentiate high quality from low quality as containing these components, adding this language shows that the impacts and compensation analysis is conservative because the model includes high-quality foraging habitat with and without perching structures. Low-value habitat doesn't appear in Figure 12-42, and shouldn't be considered when analyzing impacts. Row/truck crops and vineyard conversion is considered a threat to the species (Humple 2008). Therefore, compensation of these impacts with high-quality grassland and riparian is also a conservative approach.	
2762	247	[Page] 4.3.8-265 [Line] 1-2: Comment on administrative draft: Table 12-4A-50: Ensure impact analysis on high-value habitat includes riparian and riparian edge habitat. The analysis should be treated similarly to the Swainson's hawk and white-tailed kite. [Characterization of ICF Response]: Partially addressed. ICF response: Can't model riparian edge habitat associated with grasslands, but the model is conservative as per status of comment on page 4.3.8-334, line 10. ICF also responded that the text would suggest riparian habitat sited near open areas would provide nesting opportunities, but this revision does not appear in the text. Another suggestion is to include RRPP RBR5, which would protect 227 acres of grasslands on landward sides of levees adjacent to restored floodplain as foraging habitat for RBR [riparian brush rabbit]. This would also benefit the shrike; however, we [CDFW] hope the shrikes won't prey on the rabbits!	Riparian habitat sited near open areas is a requirement of AMM18 which is described within impact analysis and would also benefit white-tailed kite and Swainson's hawk. Hedgerow management measure is also included under EC3. Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	248	[Page] 4.3.8-264-267 [Lines] 30-31, 28-29, 41-45: Comment on administrative draft: Temporary impacts on grasslands with trees and shrubs available for nesting and on riparian habitat should also be restored after construction. Thus AMM10 should be included for this species. [Characterization of ICF Response]: Partially addressed. A reference to AMM10 still needs to be added on page 4.3.8-265, line 12, and described on page 4.3.8-268, line 1, for habitat other than cultivated lands.	Chapter 12 of the EIR/EIS was revised based on the recommended changes.
2762	249	[Page] 4.3.8-267 [Line] 30-31: Comment on administrative draft: Potential nesting shrubs and trees would also need to be mitigated at 2:1 if impacted, so the protected/restored habitat should contain an equivalent or higher number of shrubs or trees impacted. Riparian restoration and protection could be included here as mitigation if adjacent to high-quality foraging habitat. Tree or shrub replacement for Swainson's hawk [SWHA] or white-tailed kite could also apply to loggerhead shrike [LOSH]. [Characterization of ICF Response]: Partially addressed. ICF response: "Can't model that impact for this draft. But have included riparian commitment and AMM18 commitment for trees to be adjacent to SWHA foraging habitat which would benefit LOSH." These benefits, as well as CL1, VFR1, and others that could be added (ECs 8 and 9, VP/ASW [vernal pool/artificial seasonal wetland] protection, RRPPs G8 and RBR5) do	The information available for the analysis does not have the resolution to determine the number of suitable trees and shrubs that would be affected. The impact analysis already includes the benefit of some portion of the 1,060 acres of grassland protection, 1,070 acres of grassland restoration, and the 11,870 acres of cultivated lands protection. It also cites the acres of riparian restoration and protection and the commitment to AMM18 where trees would be planted in close proximity to Swainson's hawk foraging habitat (which would also benefit shrike). RBR5 (protect 227 acres of grasslands adjacent to restored floodplain) has already been added to Alt 4A in response to a different CDFW comment, this too would also help offset the effects. These measures together with Mitigation Measure 75 reduce the level of impact on loggerhead shrike to less than significant.

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		not meet the 2:1 mitigation for high-quality foraging habitat containing, or adjacent to, trees or shrubs. As a result, we [CDFW] recommend developing a mitigation measure for LOSH (which would also benefit other species) requiring that the 9,364 [acres of] protected/restored grassland and suitable cultivated lands will be sited to have trees or shrubs present. SWHA habitat and RBR5 would cover about 7,032 acres of this requirement.	
2762	250	[Page] 4.3.8-268 [Line] 16: Comment on administrative draft: See [CDFW's] comments [about the need for trees and shrubs, and concern over impacts to riparian edge grasslands] for a stronger CEQA conclusion for nesting shrikes. [Characterization of ICF Response]: Partially addressed. There is no mention of the importance of trees and shrubs in the CEQA conclusion. If the mitigation measure suggested for comment 48 [sic] is adopted, the CEQA conclusion would also reference that measure.	AMM18 is included in CEQA Conclusion. Also added "including the maintenance of important habitat features such as trees and shrubs" to EC3.
2762	251	[Page] 4.3.8-247 [Line] 1-8: Comment on administrative draft: All protected cultivated lands or even protected/restored grasslands wouldn't necessarily benefit the mountain plover (change to "could" benefit mountain plover). Grasslands need to be managed to maintain a short vegetation height, and agricultural lands provide less suitable habitat than natural lands. Both would need good insect production with small amounts of vegetation so that plovers can seek invertebrates in cracks and crevices in the soil. Some cultivated land -- including alfalfa, hay, and grain -- would not be used if the plovers cannot access the soil (Hunting and Edson 2008). For the restoration and protection to be relied upon for a less than significant CEQA conclusion, the restored/protected lands would need to be managed to be suitable. [Characterization of ICF Response]: Partially addressed. Addressed on page 247 and on page 249. EC 11 does not specifically manage habitat for ground foraging insectivores (heavily grazed or mowed, high invertebrate productivity), as stated in the analysis.	Environmental Commitment 11 is guided by Conservation Measure 11 in the Draft BDCP which includes measures for covered species such as western burrowing owl and tricolored blackbird (i.e. grazing grasslands, high invertebrate productivity). These measures will be implemented to manage protected lands for species impacts. Added text for clarification.
2762	252	[Page] 4.3.8-249 [Line] 10-11: Comment on administrative draft: This is where the suitability of habitat impacted needs to be mitigated with equally suitable habitat (managed pasture or grassland, managed fallow agricultural land, or suitable agriculture) to meet the 2:1 requirement. Environmental Commitment [EC] 11 could accomplish part of this; however, it should be stated that the acres of grassland and cultivated lands protected or restored for mitigation will be selected and/or managed to meet suitability requirements for wintering mountain plover. [Characterization of ICF Response]: Partially addressed by EC 11. Restoration of grassland and protection of ASW/VP [artificial seasonal wetland/vernal pool] complex could also contribute to Ecs meeting proposed mitigation ratios, in case there isn't enough suitable agriculture for this species. Relying on agricultural land assumes the protected habitat for SWHA [Swainson's hawk] and other species that are small mammal foragers are also suitable for insect foragers. However, SWHA foraging habitat could have higher vegetation cover than requirements of insect foragers. Mountain plover relies more on managed grassland, pastures, and harvested/fallowed fields than the majority of agricultural lands proposed for protection (Hunting and	The discussion has been revised to note that only 686 acres of grassland would be impacted when compared to the protection of 1,060 acres and restoration of another 1,070 acres of grassland would exceed the typical NEPA and CEQA mitigation ratio of 2:1 protection. The remainder of the impacted habitat would consist of 2 acres of alkali seasonal wetland complex and 47 acres of vernal pool complex. The protection of 150 acres and restoration 48 acres of vernal pool and alkali seasonal wetland complex would offset this loss. The remaining impacts are to alfalfa, grain and hay, pasture, and idle, which total 4,207 acres. The protection and management of 11,870 acres of cultivated lands for other wildlife would also provide some benefit to mountain plovers. This acreage would include 4,484 acres of cultivated lands managed for foraging habitat for cranes, which would include corn, rice, wheat, and managed wetlands. Approximately 6,748 acres of foraging habitat for Swainson's hawk would be protected, of which at least half would be alfalfa and remainder irrigated pasture, other hay crops, and other irrigated fields. Most of these cultivated lands would be idle (i.e., being prepared for planting), planted in a winter crop, such as winter wheat, or consist of low stature vegetation (e.g., pasture) during the winter months when mountain plovers would be within the study area. These cultivated lands during the winter would mostly provide the bare to low-stature vegetation the species prefers. Alfalfa is dormant during the winter and if not rotated out would remain short during the fall and winter and be ready for harvest around May.

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		Edson 2008). This could be short of the proposed mitigation requirement for this species.	
2762	253	[Page] 4.3.8-251 [Line] 4-5: Comment on administrative draft: Black terns also nest in marshes or marsh complexes on emergent, floating, or aquatic vegetation (Shuford 2008). Central Valley black terns mostly breed in rice fields, but a few breed in emergent wetlands. Impacts to emergent wetlands should also be analyzed. [Characterization of ICF Response]: Partially addressed. ICF response: "Can't change model for Recirculated Draft. Could add for the final EIR/EIS." This comment was addressed except for updating the model and analyzing potential impact to emergent wetland (marsh).	Emergent marsh was added to the model for the Final EIR.
2762	254	[Page] 4.3.8-251 [Line] 10-18: Comment on administrative draft: Ensure emergent wetlands are included in the impact analysis. [Characterization of ICF Response]: Partially addressed. [ICF response: "Can't change model for Recirculated Draft. Could add for the final EIR/EIS." This comment was addressed except for updating the model and analyzing potential impact to emergent wetland (marsh).]	See response to comment 2762-253.
2762	255	[Page] 4.3.8-251 [Lines] 13-18, 20-25: Comment on administrative draft: The BSSC [Bird Species of Special Concern] account infers that breeding black terns are extirpated from the Delta. This may be a strong analysis for a lack of direct and indirect effects on individual birds, but not necessarily on habitat. Furthermore, discussions on potential impacts should be warranted if the restoration of tidal or nontidal marsh attracts black terns to recolonize the Delta, since they regularly occur in the Sacramento Valley just north of the Yolo Bypass. The black tern may also occur occasionally in the Delta during migration or after breeding. [Characterization of ICF Response]: Noted but not addressed. This comment should be addressed after the model is revised to assess impacts on emergent wetland. We [CDFW] suggest discussing potential impacts to migrating birds. Impacts to other migratory bird species assume individuals would evade disturbance impacts that could cause mortality. We suggest requiring surveys of any rice, flooded agricultural fields, or nontidal marsh wetlands within 200 feet of the footprint in case black terns start recolonizing the Delta during the project term. This requirement could be added along with a reference to MM BIO-75 to Impact BIO 129.	The EIR states correctly that black terns are extirpated from the Sacramento-San Joaquin Delta (Shuford 2008). Considering the existing conditions within the study area, there would be no impact on black tern and thus no mitigation is required. The preconstruction nesting bird surveys in Mitigation Measure BIO-75 require surveys within 250 feet of project footprint where suitable nesting habitat occurs, which would include rice, flooded agricultural fields, or nontidal marsh wetlands since those habitats could be utilized for nesting by other species. Furthermore, restoration projects will require subsequent environmental review and if conditions where to have changed at that time such that black terns were occupying areas near these activities, then those effects and any necessary mitigation would be addressed at that time.
2762	256	[Page] 4.3.8-252 [Line] 8: Comment on administrative draft: Cultivated lands modeled should also include alfalfa. [Characterization of ICF Response]: Not addressed. ICF response: "Comment noted.	Alfalfa is included in the model.

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		Can't change model for Recirculated Draft. Could add for the final EIR/EIS."	
2762	257	[Page] 4.3.8-252 [Line] 14-15: Comment on administrative draft: Protection of grasslands could benefit these species [California horned lark and grasshopper sparrow] if the grasslands are moderately open and managed to maintain low to medium vegetation height (Unitt 2008). Horned larks require short, sparse vegetation and may favor bare, dry ground. Both species are mostly ground foragers. Only a portion of protected cultivated lands will benefit these species. [Characterization of ICF Response]: Partially addressed. See comment status for mountain plover: [Addressed on page 247 and on page 249. EC 11 does not specifically manage habitat for ground foraging insectivores (heavily grazed or mowed, high invertebrate productivity), as stated in the analysis. Restoration of grassland and protection of ASW/VP [artificial seasonal wetland/vernal pool] complex could also contribute to Ecs meeting proposed mitigation ratios, in case there isn't enough suitable agriculture for this species. Relying on agricultural land assumes the protected habitat for SWHA [Swainson's hawk] and other species that are small mammal foragers are also suitable for insect foragers. However, SWHA foraging habitat could have higher vegetation cover than requirements of insect foragers. Mountain plover relies more on managed grassland, pastures, and harvested/fallowed fields than the majority of agricultural lands proposed for protection (Hunting and Edson 2008). This could be short of the proposed mitigation requirement for this species.]	Environmental Commitment 11 is guided by Conservation Measure 11 in the Draft BDCP which includes measures for covered species such as western burrowing owl and tricolored blackbird (i.e. grazing grasslands, high invertebrate productivity). These measures will be implemented to manage protected lands for species impacts. Added text to clarify.
2762	258	[Page] 4.3.8-254 [Line] 38-43: Comment on administrative draft: Suitability of habitat impacted needs to be mitigated with equally suitable habitat (managed pasture or grassland, managed fallow agricultural land, or suitable agriculture) to meet the 2:1 requirement. Environmental Commitment 11 could accomplish part of this; however, it should be stated that the acres of grassland and cultivated lands protected or restored for mitigation will be selected and/or managed to meet suitability requirements for the species. [Characterization of ICF Response]: Partially addressed per status of [CDFW's] comments [for] page 4.3.8-247, lines 1-8 and page 4.3.8-252, lines 14-15. ICF stated that a mitigation measure cannot be developed to ensure the management of lands restored/protected through ECs [environmental commitments] will meet proposed CEQA mitigation ratios for these grassland species. Horned larks have similar foraging requirements as mountain plovers. Grasshopper sparrows are also ground foragers that prefer dry, sparsely vegetated sites with open or bare ground for feeding, but also use medium height grasses and alfalfa. All of these birds are declining grassland species that may not have adapted as well to agriculture as Swainson's hawk. Therefore, relying mostly on protected agricultural land for their mitigation would not benefit the species as much as mitigating with heavily managed grassland.	Added text to describe the conservative nature of impact analysis (i.e. including agricultural lands because some are suitable for the species) and management needs.
2762	259	[Page] 4.3.8-259 [Line] 28; [Page] 260 [Line] 8:	Alternative 4A no longer includes recreational development within conservation areas.

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		Comment on administrative draft: Include AMM 37 here and in the CEQA conclusion. [Characterization of ICF Response]: Partially addressed. Not addressed on page 259, lines 19-23.	
2762	260	[Page] 5-6, Table 5.2.1-1: The Lindsey Slough project has been completed. The table name and accompanying note state that these projects may apply toward meeting the conveyance project's Environmental Commitments, but many of these are described in preceding text as being a part of California EcoRestore, suggesting they would not be means to meet Alt. 4A's Environmental Commitments. Please clarify.	The preceding paragraph states: "The non-HCP alternatives (Alternatives 4A, 2D, and 5A) would not have the same kind of concurrent project effects as described for the other alternatives because the interim restoration implementation actions are not part of the non-HCP alternatives but instead would be implemented separately under the California Water Action Plan/California EcoRestore program." For the Final EIR/EIS, a note was added to this table that states: "These projects have been identified as projects that may be implemented under California EcoRestore; therefore, would not be included within the Environmental Commitments identified for Alternatives 4A, 2D, and 5A."
2762	261	[Page] 5-6 [Line] 1-6: The text states that concurrent project effects will not occur under the non-HCP alternatives because these new alternatives do not contain the CMs [conservation measures]. However, the preceding text and following table identify projects that may occur under California EcoRestore during the construction period for the conveyance. Modeling assumes that in the near term 25,000 acres of tidal restoration will occur, as well as Yolo improvements. Please clarify or confirm how these projects are considered as potential cumulative projects for the non-HCP alternatives.	The California Action Plan, California EcoRestore and other programs listed in the section are included in the cumulative impact analysis because they are reasonably foreseeable future projects that if combined with the effects of the California WaterFix could have a compounded effect on resources. The discussion of concurrent effects for Alternatives 4A, 2D and 5A indicates that the project listed in Table 5.2.2.1 do not apply to these alternatives because these actions do not include early restoration implementation actions that are described for the HCP alternatives.
2762	262	[Page] 5-129 [Line] 8-16: CDFW staff made substantial comments on Section 4.3.8 (Alt 4A, Terrestrial Biological Resources) regarding the adequacy of proposed mitigation measures in offsetting impacts to special-status species as a result of water conveyance facility construction. In some cases the proposed mitigation acreages do not meet the stated CEQA mitigation ratios commonly used to offset impacts to individual species. In other cases, the same mitigation action (for example, riparian habitat restoration) is proposed as a mitigation measure for multiple species with a wide range of specific habitat requirements. These species requirements are, in some cases, so disparate that one project or mitigation commitment cannot be tailored to both species (for example, least Bell's vireo and special-status bats). CDFW staff reiterates these comments again in the context of Section 5, Cumulative Impacts. When taken together, across all cumulative impacts to special status species in the Delta, even a slight difference between standard mitigation acreage requirements under CEQA and those proposed for this project, or partial inadequacy in the ability of proposed mitigation to meet species-specific requirements, are likely to result in adverse impacts under the preferred alternative 4A.	As discussed in Chapter 3, Section 3.6.3, Environmental Commitments, the Environmental Commitments would be implemented in the same manner as described in the corresponding Conservation Measures in the BDCP. For example, Conservation Measure 7 includes siting and design considerations to meet the needs of multiple species, including riparian brush rabbit, valley elderberry longhorn beetle, and Swainson's hawk. CM 7 also includes guidance for creating structural diversity and structural heterogeneity, early to mid-successional vegetation, and late successional vegetation. Furthermore, Alternative 4A also includes specific Resource Restoration and Protection Principles (see Table 3-7 in Chapter 3 of the EIR/EIS), which carry forward many of the biological goals and objectives for natural communities and species identified in the BDCP. The resource restoration and protection principles include VFR1, to restore, maintain, and enhance riparian areas to provide a mix of early-, mid-, and late-successional riparian habitat (a benefit to tree roosting bats) with a well-developed understory of dense shrubs (a benefit to least Bell's vireo); VFR2 a measure to maintain a single contiguous patch of 100 acres of mature riparian forest (benefiting bats); VELB1 and VELB2, specific guidance for replacing elderberry shrubs; and RBR1 – RBR5, which includes specific guidance for restoring and protecting habitat for riparian brush rabbit including specific acreages. The analysis for each of the species discussed in the comment do in fact refer to these specific measures to demonstrate how the effects would be offset. The analysis does present the total riparian habitat to be protected and restored but also refers to these specific guidance to achieve the needs of each species. The total riparian conservation proposed (100 acres of protection and 251 acres of restoration) was not chosen to only offset the amount of riparian natural community affected (48 acres permanent and 24 acres temporary) but also to meet the needs of a diversity of species. Alternative 4A is presented in the same manner as the BDCP alternatives, in that the approach to conservation is done at the natural community level and guided by Biological Goals and Objectives for the BDCP alternatives and Resource Restoration and Protection Principles for the non-BDCP alternatives, which provides the species specific guidance for conservation. Furthermore, additional details for species level guidance are found in the AMMs in Appendix 3B of the EIR/EIS and in the BDCP Conservation Measures, which are still be relied upon to provide the guidance for the implementation of the Environmental

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			Commitments. Ratios were applied to natural communities as a check to determine whether the proposed conservation would be sufficient to offset the effects. This was done to be consistent in treatment across all alternatives. Because the BDCP alternatives were part of an NCCP, the approach for which is based on conservation at the natural community level as opposed to species level conservation, all of the typical ratio checks were done at the natural community level.
2762	263	[Page] 8-33 [Line] 28: 2015 WDR [waste discharge requirements] for discharges to Mud Slough have recently been adopted (CVRWQCB [Central Valley Regional Water Quality Contrl Board] 2015).	The recently adopted WDRs for selenium for discharges Mud Slough are acknowledged. Because WDRs for selenium are intended to control selenium loading and improve water quality conditions, this does not affect the selenium assessment presented in the RDEIR/SDEIS or Final EIR/EIS.
2762	264	[Page] 8-34 [Line] 13, 37: White sturgeon selenium tissue data have been collected and reported from the San Francisco Bay and Delta recently (Linares-Casanave, Linville et al. 2014). The fish selenium concentrations are at levels that have been shown to cause reproductive toxicity.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised.
2762	265	[Page] 8-54: Total mercury concentrations in many Central Valley water bodies and Delta outflow have been to found to have statistically significant positive relationships with flow. If the project alternatives have the ability to adjust flow rates into or out of the Delta, then the analyses should include this type of relationship to estimate mercury concentrations (and other constituents with flow-dependent concentrations) to calculate mass-balances. The assumption that concentrations are conservative and independent of flow rates may not present the true magnitude of impacts caused by alternatives that adjust flow magnitude (Louie, Foe et al. 2008, David, McKee et al. 2009, Wood, Morris et al. 2010).	The modeling conducted to support the mercury assessment in Chapter 8, Water Quality, applied long-term average concentrations to each of the source waters. Such an approach is appropriate for this assessment given that the modeled changes in river flows from CALSIM II are monthly average flows and the assessment evaluates long-term changes in concentrations for a 16-year period. David et al. 2009 notes that higher mercury concentrations are associated with infrequent flood events; the alternatives would not affect flood flows. Further, mercury is of concern due to bioaccumulation in the food chain and long-term exposure through consumption of contaminated aquatic life. Finally, the assessment is done in a comparative manner to assess the direction and degree of long-term changes in mercury concentrations. The approach of using long-term average concentrations for Delta source waters allows for making such determinations. Please also see Master Response 14.
2762	266	[Page] 8-58 [Line] 33: Research in the last 10 years has shown that fish are more sensitive to mercury toxicity than previously thought (Beckvar, Dillon et al. 2005, Dillon, Beckvar et al. 2010, Sandheinrich, Bhavsar et al. 2011). It is estimated that fish tissue methylmercury concentrations need to be 0.2 mg/kg (whole body) to be protective of fish health. In addition, the most sensitive endpoint of mercury toxicity is likely to eggs and early-life stages of fish through maternal transfer (<0.02 mg/kg). Current water quality objectives and criteria were only developed to protect humans and other wildlife consumers of fish (e.g., Delta Methylmercury TMDL [total maximum daily load], San Francisco Bay Mercury TMDL, and CTR [California Toxic Rules]). The current analyses should include an evaluation of the impacts of alternatives on mercury toxicity to fish using 0.2 mg/kg (0.02 mg/kg for ELS [early life stages]) or equivalent as a benchmark. As well, the "Existing Surface Water Quality" section should include mercury toxicity and risks to fish.	Please refer to Master Responses 14 regarding mercury.
2762	267	[Page] 8-87 [Line] 11-12: The text states: "The later estimation is recognized as the most reliable calculation of mercury exported from the Delta to date (SFBRWQCB 2006)." However, the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB)	The journal publication cited in the comment, David et al. 2009, is the same paper in the text as the most reliable calculation of mercury exported from the Delta. No change to this text is necessary.

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		recognizes David, McKee et al. (2009) as the most reliable calculation. Please revise this citation.	
2762	268	[Page] 8-87 [Line] 21-23: The text states: "The Central Valley Water Board has targeted the 110 kg/year total mercury load reduction in its planned implementation of the Delta Methylmercury TMDL [total maximum daily load] (SFBRWQCB [San Francisco Bay Regional Water Quality Control Board] 2006)." Wrong reference. Instead cite CVRWQCB [Central Valley Regional Water Quality Control Board] (2010).	SFBRWQCB 2006 states that the Central Valley Water Board's target total mercury reduction is 110 kg/year. No change is necessary.
2762	269	[Page] 8-98 [Line] 10: "Low Toxicity Thresholds" is not one of the 3 categories of exceedance threshold categories said to be evaluated earlier in the paragraph.	This error has been corrected.
2762	270	[Page] 8-98 [Line] 18: The category described previously was "Toxicity Threshold Exceedance," not "Toxicity Level Exceedance."	Instances of "Toxicity Level Exceedance" have been changed to "Toxicity Threshold Exceedance" for consistency in terminology.
2762	271	[Page] 8-98 [Line] 19-23: None of the figures display the Toxicity Threshold Exceedance Quotients. Figure 8-65 is monthly average flow.	This error has been corrected. The authors appreciate the comment.
2762	272	[Page] 8-105 [Line] 42-44: Delta methylmercury export load estimates were developed from monitoring that was conducted from approximately 2000-2006, not only one year of data (Louie, Foe et al. 2008).	Reference to there being only one year of data was removed from the discussion of methylmercury loading estimates from the Delta to the San Francisco Bay from all San Francisco Bay impact assessments (Impact WQ-34).
2762	273	[Page] 8-247 [Line] 4-31: The State Water Board's Statewide Mercury Control Program for Reservoirs has determined that the magnitude of reservoir level fluctuations has been found to be positively correlated to reservoir fish tissue methylmercury concentrations (SWRCB 2015). If the project operations result in increasing the fluctuations of upstream reservoirs through re-operations, etc., then the project may impact reservoir fish methylmercury concentrations. The current environmental evaluation has not assessed this impact.	Please see response to Comment 2762-41.
2762	274	[Page] 8-248 [Line] 29: Exceedance quotients comparisons should include an evaluation of fish protection benchmarks for mercury (e.g., 0.2 mg/kg adults and 0.02 mg/kg ELS [early life stage]). The evaluation should include assessments for sensitive fish species.	Please refer to Master Responses 14 regarding mercury.
2762	275	[Page] 8-249 [Line] 22: Many major rivers in the Sacramento-San Joaquin River Delta watersheds have	As described in Chapter 8 and Appendix 8I of the EIR/EIS, the regional model used to analyze potential changes in mercury concentrations is a regional model that does assume that mercury is a conservative element. The model is used only in a comparative manner to understand the differences in conditions under

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		significant relationships between flow and total mercury concentrations. [Total mercury concentrations in many Central Valley water bodies and Delta outflow have been to found to have statistically significant positive relationships with flow. If the project alternatives have the ability to adjust flow rates into or out of the Delta, then the analyses should include this type of relationship to estimate mercury concentrations (and other constituents with flow-dependent concentrations) to calculate mass-balances. The assumption that concentrations are conservative and independent of flow rates may not present the true magnitude of impacts caused by alternatives that adjust flow magnitude (Louie, Foe et al. 2008, David, McKee et al. 2009, Wood, Morris et al. 2010).]	an action alternative as compared to the Existing Conditions and No Action Alternative simulations. The SWP and CVP facilities are not operated under the action alternatives in the EIR/EIS in a manner to adjust Delta inflow or Delta outflow to change mercury concentrations.
2762	276	[Page] 8-283 [Line] 29: Sturgeon are biological. The project is predicted to cause harm to green sturgeon, an ESA-listed species. Additionally, since sturgeon are indicator species, this analysis indicates that there may be other organisms that feed from the benthic food web (e.g., splittail) which might be at high risk. If it is predicted that sturgeon selenium concentrations may exceed benchmarks and thresholds, then it is possible that these other benthic feeders may be at risk too. Selenium tends to accumulate to a much greater extend in sensitive tissues (e.g., liver, gonads, kidneys) than in muscle, and selenium toxicity has been shown to increase non-linearly. Increasing selenium concentrations from below benchmark thresholds to above thresholds is significant. Furthermore, increasing whole-body concentrations would result in multiple-fold increases in other sensitive tissues, which may have significant effects to the organisms or offspring. It is incorrect to conclude that there are no predicted exceedances of biological effects if Alternatives 4 and 4A would cause an EQ [exceedance quotient] of 1.1 for sturgeon and exceed the lower benchmark. This comment also applies to Alternative 4A water quality analyses and CEQA conclusions.	For sturgeon, the assessment considered two benchmarks, and found that there would be low potential for overall effects to sturgeon based on the changes in exceedance of the two benchmarks. While the lower threshold would potentially be exceeded, the upper threshold would not be, indicating low potential for adverse effects. Further, water concentrations and concentrations in other biota assessed would essentially be the same as Existing Conditions. Hence, the conclusion that Alternative 4A, the preferred alternative, would have a less than significant impact on water quality due to selenium.
2762	277	[Page] 8-309 [Line] 41: Delta export loads were estimated from data collected between 2000-2006, [not only one year of data] (Louie, Foe et al. 2008).	This text has been modified in the Final EIR/EIS.
2762	278	The process between modeling or other analysis and NEPA Effects/CEQA Conclusions determinations needs to be described more clearly. Generally the analysis shows differences between NAA [No Action Alternative]/Existing Conditions and Proposed Project for habitat/physical values such as flow or temperature based on 2010 modeling for scenarios H3 and H4. These values are also frequently presented in mean or average values over long periods of time. What is not clear is how these modeled physical changes are translated into biological effects and subsequently how these biological effects are deemed to be significant/adverse or not in the NEPA Effects/CEQA Conclusions. It should be made clear that these determinations are often based on professional experience rather than a rigorous quantitative process that translates modeled physical effects into biological effects. This was acknowledged in the BOR [Bureau of Reclamation]'s recent DEIS for the Coordinated Long-Term Operations of the	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. The comment questions the connection between modeling and impact conclusions. The lead agencies believe that the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS are complete in their evaluation of impacts using the best available science and modeling. For additional information regarding the approach to the effects analysis see Section 11.3 of the Final EIR/EIS, for more information on modeling, please see Master Response 30 and Master Response 14.

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		CVP/SWP. In order to clarify how these decisions are made, more effort could be placed into describing the rationale behind the decision. It is also not clear what species population estimates or species abundance indexes these modeled effects are applied to in assessing biological effects and NEPA Effects/CEQA Conclusions. Species population indices and abundance estimates are trending down both long term, under current conditions, and are likely to continue to trend down into the future due to climate change, increased demand, and sea level rise. Please note that there are numerous instances where the NEPA effects (no adverse impact) are utilized over CEQA conclusions (which show significant impact) because NAA separates non-project impacts (climate change, sea level rise, increased demand) from project impacts. Fish populations in the wild, however, are not are subject to NEPA/CEQA distinctions. Rather, they are subject to the conditions and stressors that they experience and populations will respond accordingly between Existing Conditions and NAA. The question is then whether the translation between modeled physical effects, biologically meaningful effects, and subsequently NEPA/CEQA determinations is made based on knowledge of current fish populations, or are these decisions made based on the effect project operations may have on future populations at the NAA baseline in light of degrading environmental conditions? This is an important distinction because smaller magnitudes of change in physical habitat attributes may have a greater effect on aquatic species with critically low population abundances in the future.	
2762	279	[Page] 3-7 [Line] 29-32: "Refer to Section 4.3.7, Fish and Aquatic Resources, Impacts AQUA-1, AQUA-19, AQUA-37, AQUA-55, AQUA-73, AQUA-91, AQUA-109, AQUA-127, AQUA-145, AQUA-163, AQUA-181, and AQUA-199 for the analysis of Alternative 4A. These construction-related impacts would be identical for Alternative 4 because the proposed physical water conveyance facilities are the same for both alternatives." The text written here creates a circular path the reader must follow. AQUA-109 for example, refers the reader back to Alternative 4 (presumably of the Public Draft EIR/EIS?) for a description of impacts. This creates confusion and does not seem to align with the text written here.	Alternatives 4A and 4 differ only in their operations, so it is appropriate to refer the reader to the construction effects discussion for Alternative 4 when disclosing Alternative 4A effects. A full analysis of Alternative 4A is presented in the Final EIR.
2762	280	[Page] 4.2-1 [Line] 16-18: This sentence states that the NAA_ELT [No Action Alternative Early Long Term] period assumes a time period of approximately 15 years following project approval, but the footnote on this page suggests that the ELT is modeled at 2025, which will be significantly shorter than 15 years. Please update the language for consistency and provide an explanation in the text for this discrepancy.	The text referred to in this comment refers to ELT period actually being completed in 2030. The CALSIM II model assumptions for the No Action Alternative have been developed by DWR using population growth projections for 2030 based upon information from the urban water management plans that include projections for that same time period. The No Action Alternative also includes climate change and sea level rise assumptions that are estimated to occur within the 2025 to 2030 time horizon. The RDEIR/SDEIS assumed that the project would be approved in 2015, and therefore, the ELT time horizon would extend approximately 15 years following project approval.
2762	281	[Page] 4.2-51 [Line] 31-36: RPA [Reasonable and Prudent Alternative] Action 1.7 will provide improved connectivity and passage for SRC [spring-run Chinook salmon], as well as other salmon runs. This information should be updated as appropriate to this discussion. However, it	Text has been modified and reference to RPA Action 1.7 removed.

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		is unclear why specific reference to RPA 1.7 is called out here when many of the RPAs are aimed at increasing abundances of listed fishes. If the intent is to make a connection between adult passage resulting in increased success of spawning and population abundance, which could then lead to increased entrainment, the discussion could use additional clarification.	
2762	282	[Page] 4.2-54 [Line] 12-14: This CEQA conclusion overstates the number of species that will likely have rearing benefits from RPA [Reasonable and Prudent Alternative] Action 1.6.1. The extent by which RPA Action 1.6.1 will have rearing benefits for steelhead is unclear and rearing benefits to green and white sturgeon are even more uncertain. In addition, splittail may have some rearing benefits, but the benefits of RPA Action 1.6.1 to splittail are predominantly in regards to spawning habitat, and should therefore be included in the Water Ops Effects on Spawning in the above section.	Although the extent of the rearing benefits to steelhead and sturgeon of RPA 1.6.1 is uncertain, it is reasonable to expect that more floodplain habitat would provide benefits. The objective of RPA Action 1.6.1 as proposed by NMFS was to "…restore floodplain rearing habitat for juvenile winter-run, spring-run, and CV steelhead in the lower Sacramento Basin", indicating that NMFS expected steelhead to benefit. Rearing benefits to green and white sturgeon are uncertain, but evidence from the Columbia River basin suggests that they may be important (Coutant 2004). As regards splittail, there is no doubt that rearing benefits (as well as spawning benefits) of floodplain habitat are critical, although they primarily affect rearing of larvae and early juveniles. Coutant, C. C. 2004. A riparian habitat hypothesis for successful reproduction of white sturgeon. Review in Fisheries Science 12: 23-73. For more information regarding Environmental Commitments, including former CMs like tidal restoration and channel margin enhancement please see Appendix 3B of the FEIR/EIS.
2762	283	[Page] 4.2-54 [Line] 39-43: It is unclear whether this section is discussing impacts on migration habitat for juveniles or for adults -- we assume it is referring to juvenile migration. While RPA [Reasonable and Prudent Alternative] Action 1.7 will likely have benefits for out-migrating juveniles, the RPA is targeting adult passage. Therefore, if this section is about juvenile migration habitat (which makes the most sense), then it may not be appropriate to discuss the potential indirect benefits from RPA Action 1.7 with any certainty. It would be more appropriate to call out RPA Action 1.6.1 benefits here, since that RPA targets juveniles, and discuss the benefits of the Yolo Bypass as a migratory pathway as compared to the Sacramento River. In addition, the extent in which there are migration habitat benefits to splittail from this RPA are uncertain; the benefits from floodplain for this species are largely spawning and some level of rearing.	This section is regarding the CEQA conclusions for the No Action Alternatives pertaining to all migration effects. These RPA actions are still in the planning phase and the extent of the benefit to migrating fish has not been quantified.
2762	284	[Page] 4.2-57 [Line] 15: The term "Important Farmland" should be defined and reference or footnoted.	The term Important Farmland is defined by the California Department of Conservation as including prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance. See Chapter 14, Section 14.1.1.5 of the Final EIR/EIS for a discussion of Important Farmland.
2762	285	[Page] 4.2-57 [Line] 23: Are "existing plans and programs" also referring to implementation of the BiOp [Biological Opinion] RPAs [Reasonable and Prudent Alternatives]? It would be useful to include a little more detail on some examples of which RPAs will be converting agricultural lands, including, e.g., RPA 1.6.1, upon which this CEQA conclusion is being drawn, especially given that it is a "significant" conclusion.	The EIR/S described the assumptions used to define the No Action scenario as well as those actions that would be evaluated in the cumulative analysis. Assumptions associated with the effect from these elements have been quantified to the extent practicable. Some of the RPAs are not established at this time and the effects analysis must be addressed in a programmatic level due to the uncertainties associated with the ultimate design and operation. Section 3.5.1 of the 2013 EIR/S stated: "The No Action Alternative assumptions include the basic description of the No Action Alternative, assumptions related to the SWP and CVP, ongoing programs and policies by governmental and nonprofit entities, projections related to climate change, and assumptions related to annual actions that vary every year. Among the ongoing programs by governmental entities which are included in the No Action Alternative are many of the actions required by the 2008 and 2009 USFWS and NMFS BiOps. The following summarizes

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			which actions are reflected in the No Action Alternative. The anticipated effects of actions required by the 2008 and 2009 BiOps that have already occurred or are expected to be implemented prior to BDCP approval are assumed in the No Action Alternative. The anticipated effects of actions required by the 2008 and 2009 BiOps that change water operations in the Plan Area or upstream were assumed in the No Action Alternative if they were reasonably certain to occur and enough was known about the effects of the action in early 2010 (when the No Action Alternative for hydrodynamic modeling was established) to define modeling assumptions for the change in water operations. The anticipated effects of some actions required by the 2008 and 2009 BiOps in the Plan Area are also included in the BDCP conservation strategy. In some cases, these actions are included in the No Action Alternative and in 1 other case they are not. A key reason for these assumptions is that the 2008 and 2009 USFWS and NMFS BiOps will be superseded by the BDCP and associated BiOps. As described in Chapter 1, Introduction, the current operation of the CVP/SWP is governed by requirements that include the 2008 and 2009 BiOps. The requirements of these BiOps may be modified in response to a court ordered remand process, depending on the schedule approved by the court. The new operation of BDCP will occur once the new north Delta intakes are constructed. Once the new intakes are operational, the BDCP and any corresponding BiOps will replace the then-current BiOps for long-term operation of the CVP/SWP Examples of effects assumed in the No Action Alternative, but that are also associated with BDCP conservation measures, include the effects of operations of the Delta Cross-Channel Gates (NMFS Action IV.12) and those related to measures to reduce entrainment at the south Delta export facilities (NMFS Action IV.3). An example of the effects of actions that are attributable to the BDCP and not assumed in the No Action Alternative include Yolo Bypass improvements and tidal marsh restoration (NMFS Actions I.6.1, I.6.2, and I.7; USFWS Action Reasonable and Prudent Alternative Component 4). More discussion of these assumptions is provided below. In some cases, RPA actions also included in BDCP were modified to take into account new scientific information available since the BiOps were issued, or additional planning done for BDCP beyond what was developed for the BiOps. Examples of this include CM16 Non-physical Fish Barriers, which is similar to, but much more defined and specific than, NMFS Action IV.1.3. Requirements of the 2008 and 2009 BiOps that call for conducting planning or feasibility studies with undefined outcomes were not assumed in the No Action Alternative. By themselves, these planning or feasibility studies would have no effect on environmental conditions. Their outcomes are unknown at this time and therefore too speculative to include in the No Action Alternative. Further environmental compliance, permitting, and ESA and California Endangered Species Act (CESA) compliance would be needed to implement any recommendations of these future studies. Examples include fish passage over SWP/CVP terminal dams such as Shasta (NMFS Actions NF4.4 and LF2). Requirements of the 2008 and 2009 BiOps that involve reporting, monitoring, or research actions are not assumed in the No Action Alternative because they are not expected to affect the environment or covered species (monitoring and research actions required by the BiOps are discussed in Section 3.6, Adaptive Management and Monitoring Program in Chapter 3 of the BDCP)." Comment does not indicate that there is a disagreement with the conclusions in the EIR/S regarding agriculture.
2762	286	[Page] 4.3.4-24 [Line] 27-30: The language here seems to suggest that modeled electrical conductivity [EC] for Alt 4A is based on results using assumptions from Alt 4. This is particularly concerning as	Please see Master Response 30 regarding modeling of Alternative 4A that was updated for the Final EIR/S.

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		Alt 4 has a substantial amount of tidal restoration and a compliance point at Threemile Slough, which is further upstream than the compliance point for Alt 4A (Emmaton). If this is the case, then the conclusions for EC under Alt 4A are likely muted and reflect conditions which are substantially different than what is likely to occur within the Plan Area. A discussion of the difference, or reasons to why there is no difference, should be included.	
2762	287	[Page] 4.3.4-30 [Line] 16-19: "The implementation of mitigation actions shall be focused on avoiding or minimizing those incremental effects attributable to implementation of Alternative 4A operations only. Mitigation actions to avoid or minimize the incremental EC [electrical conductivity] effects attributable to climate change/sea level rise are not required because these changed conditions would occur with or without implementation of Alternative 4A." Operations of the SWP and CVP (including north Delta Diversions) will continue to need to meet D-1641 compliance standards even in the face of sea level rise. We [CDFW] have understood that operations will continue to manage for D-1641 compliance standards by adjusting diversions and reservoir releases as part of routine operations. Thus it is unclear how this mitigation measure would be implemented so the impacts would be less-than-significant.	The impacts identified for EC as significant under Alternative 4A, Impact WQ-11 are based on the modeled changes in EC at Emmaton and Prisoners Point. The modeling included a set of assumptions regarding project operations and diversion criteria that are fixed for the entire simulation. The models do not allow for incorporating real-time decision making that would actually occur in certain year types in response to Delta hydrologic and water quality conditions for compliance. The significant EC impacts identified for EC for Alternative 4A were due, in part, to the fixed modeling assumptions regarding diversions at the north vs. south intakes and operations of the Head of Old River Barrier. Mitigation Measures WQ-11e and WQ-11f in the Final EIR/EIS (identified as Mitigation Measures WQ-11a and 11b in Section 4.3.4 of the RDEIR/SDEIS) are additional operations-related actions beyond that reflected in the modeling that would mitigate the identified impacts, based on sensitivity analyses conducted and presented in Appendix 8H, Electrical Conductivity, Attachment 1 1 and updated modeling conducted as part of the Final EIR/EIS. Please see Master Response 22 for information on the adequacy of mitigation measures. For further information on climate change, please see Master Response 19.
2762	288	[Page] 4.3.4-30 [Line] 24-36: CALSIM II, as described in 8.3.1.1, places EC [electrical conductivity] compliance at Emmaton at the highest priority, and either achieves the objective, or decides that there is no feasible way to meet it. Please provide additional information on [how] a mitigation measure such as WQ-11a will be able to have a meaningful effect at avoiding and minimizing impacts beyond what CALSIM II predicts, as the model should already incorporate management of diversions into its Artificial Neural Network.	Please see response to comment 2762-287. Additional evaluations and modeling under WQ-11a along with WQ-11b will show whether there is sufficient flexibility to prevent or offset EC increases is feasible under Alternative 4A. This further modeling could reduce or eliminated water quality degradation in current models.
2762	289	[Page] 4.3.7-33 [Line] 18: "AQUa-1b" should be "AQUA-1b".	The correction has been made in Chapter 11, Fish and Aquatic Resources, of the Final EIR/EIS.
2762	290	[Page] 4.3.7-33 [Line] 33: Here and on Line 37, the text appears to mistakenly refer to Delta smelt, rather than longfin smelt.	The text has been revised per the comment.
2762	291	[Page] 4.3.7-34 [Line] 4: Here and at Line 8 there appear to be mistaken references to Delta smelt, rather than longfin smelt.	The text has been revised per the comment.
2762	292	[Page] 4.3.7-35 [Line] 19: The meaning of [the] sentence here would be clearer if the word "losses" was deleted after the word "entrainment."	The text has been revised per the comment.

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2762	293	[Page] 4.3.7-36 [Line] 29: For added clarity consider finishing the sentence here with the phrase ". . .Incidental Take Permit issued by DFW."	It is unclear how the sentence the commenter points to would be properly concluded with the suggested language. No change was made in response to this comment.
2762	294	[Page] 4.3.7-36 [Line] 29: The sentence beginning here with "However," in combination with subsequent sentences, reads awkwardly and contains some redundancy. Consider revising this section of text to read something like: "However, at this time, the best predictor of Longfin Smelt abundance is the statistical relationship between January through June X2 and Fall recruitment developed by Kimmerer et al. (2009), indicating that lower (farther downstream) X2 is associated with greater abundance. For the purposes of this impact assessment, the Kimmerer et al. (2009) relationship was used to determine how project-related changes in winter-spring X2 position might influence Longfin Smelt Fall recruitment. Consistent with the adaptive management and monitoring program described in Section 4.1, Alternative 4A would implement investigations to improve understanding of factors affecting Longfin Smelt abundance and better inform future project operations."	The text has been revised per the comment.
2762	295	[Page] 4.3.7-38 [Line] 12: It appears"has" should instead be "have."	The correction has been made in Chapter 11, Fish and Aquatic Resources, of the Final EIR/EIS.
2762	296	[Page] 4.3.7-39, Table 11-4A-8: Footnote "1" in the table hints at something important relative to project impacts on longfin smelt. This species has declined severely and it is likely that CVP/SWP attenuation of winter-spring flows has contributed to this trend, and that the species can't sustain itself under existing operations. The effect of existing operations can be assessed using the X2/abundance relationship developed by Kimmerer et al. (2009), and such an assessment should be incorporated into cumulative effects discussions. The sustainability risk posed by existing operations argue strongly for avoidance of even small negative effects associated with the proposed project, like those associated with Alternative 4A (H3).	Kimmerer et al. (2009) is used as a comparative tool, and doesn't provide absolute values. However, the current status of longfin smelt is incorporated into the cumulative discussion.
2762	297	[Page] 4.3.7-44 [Line] 16: General Comment -- Winter-Run Chinook Salmon CDFW will continue to participate in California WaterFix development of water operations criteria and analysis for winter-run effects. This is currently happening under the development of the Section 7 BA [Biological Assessment], with an expectation that the Final EIR/EIS will be consistent with the results and determinations of those efforts. Should the results of those efforts indicate that mitigation measures are necessary under CEQA, CDFW's expectation is that mitigation measures identified will be incorporated into the Final EIR/EIS.	The comment does not raise any specific environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2762	298	[Page] 4.3.7-50 [Line] 24 and 36: Suggest deleting "as is currently being done" here and in the next paragraph.	This phrase is included in the referenced text in the Fish and Aquatic Resources section to indicate that consultation with regulatory agencies during drought conditions will continue in a manner the same as occurs currently. No change to this text has been made.

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2762	299	[Page] 4.3.7-60 [Line] 44: It is unclear how the author can come to this conclusion without a discussion of existing operations and RPA [Reasonable and Prudent Alternative] actions intended to address significant impacts associated with the existing project operations (NAA_ELT [No Action Alternative Early Long Term]). The BiOps [Biological Opinions] found significant impacts under the NAA_ELT and require RPAs to avoid jeopardy. This project summarizes that it would then have additional impacts when compared to the NAA_ELT, yet concludes that no mitigation is required.	The Existing Conditions and No Action Alternative scenarios include the RPAs; therefore, there would be no significant impacts under existing conditions. However, when climate change is added to existing conditions (the NAA_ELT scenario), climate change would cause effects (see the No Action Alternative analysis in Chapter 11, Fish and Aquatic Species). This section describes that the existing conditions scenario does not include climate change, whereas Alternative 4A scenario does include climate change. The section describes that, in order to make an apples-to-apples comparison of a scenario with and without the alternative, climate change must be removed. It described that NAA is such a scenario and then relies on the NAA comparison to Alternative 4A described in the NEPA section above. The section does not describe that Alternative 4A would "have additional impacts when compared to NAA_ELT". In fact, it argues the opposite.
2762	300	[Page] 4.3.7-77 [Line] 20: General Comment -- Spring-Run Chinook Salmon CDFW will continue to participate in California WaterFix development of water operations criteria and BA/BO [Biological Assessment/Biological Opinion] and 2081 analysis for spring-run Chinook salmon effects with the expectation that the Final EIR/EIS will be consistent with the results and determinations of those efforts. Should the results of that effort indicate that mitigation measures are necessary under CEQA, CDFW's expectation is that mitigation measures identified will be incorporated into the Final EIR/EIS.	The comment does not raise any specific environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2762	301	[Page] 4.3.7-124 [Line] 28: General Comment -- Fall/Late Fall-Run Chinook Salmon CDFW will continue to participate in California WaterFix development of water operations criteria and BA/BO [Biological Assessment/Biological Opinion] and 2081 analysis for fall/late fall-run Chinook salmon effects with the expectation that the Final EIR/EIS will be consistent with the results and determinations of those efforts. Should the results of those efforts indicate that mitigation measures are necessary under CEQA, CDFW's expectation is that mitigation measures identified will be incorporated into the Final EIR/EIS. Fall/late fall-run Chinook salmon will not be included in the 2081 permit and potential impacts must be mitigated through CEQA.	The comment does not raise any specific environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2762	302	[Page] 4.3.7-124: CDFW will continue to participate in California WaterFix development of water operations criteria and BA/BO [Biological Assessment/Biological Opinion] and 2081 analysis for winter-run effects with the expectation that the Final EIR/EIS will be consistent with the results and determinations of those efforts. Should the results of those efforts indicate that mitigation measures are necessary under CEQA, CDFW's expectation is that mitigation measures identified will be incorporated into the Final EIR/EIS. Steelhead will not be included in the 2081 permit and potential impacts must be mitigated through CEQA.	Steelhead are addressed under the Federal ESA consultation process. The analysis in the BA is consistent with the analysis in the EIR/EIS. A ROD will not be issued until a BiOp is issued.
2762	303	[Page] 4.3.7-124 [Line] 37:	The following text replaces the text in section 4.3.7:

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		In section 4.3.7, the potential effects on fall-run/late fall-run are stated to be the same as those described for Alternative 4, Impact AQUA-73. In section 3.3.8, it refers to section 4.3.7 for analysis of alternative 4A. Please include summary analysis of the effects of construction of water conveyance facilities on Chinook salmon (fall/late fall-run ESU [evolutionarily significant units]) instead of referring to section 3.3.8 which then refers the reader back to section 4.3.7.	Impact AQUA-73: Effects of Construction of Water Conveyance Facilities on Chinook Salmon (Fall-/Late Fall–Run ESU) Under Alternative 4A, the potential effects of underwater noise resulting from construction of the water conveyance facilities on fall-/late fall-run Chinook salmon would be similar to those discussed for winter-run Chinook (see Impact AQUA-37), which includes a summary of the exposure risk for fall-/late fall-run Chinook salmon. NEPA Effects: Under Alternative 4A, the potential effects of construction of the water conveyance facilities on fall-/late fall-run Chinook salmon would be similar to those discussed for winter-run Chinook salmon (see AQUA-37). Potential effects from increased turbidity, noise, and contaminant spills will be avoided and/or minimized through implementation of environmental commitments (see Impact AQUA-1 and Appendix 3B, Environmental Commitments: Environmental Training; Stormwater Pollution Prevention Plan; Erosion and Sediment Control Plan; Hazardous Materials Management Plan; Spill Prevention, Containment, and Countermeasure Plan; Disposal of Spoils, Reusable Tunnel Material, and Dredged Material; Fish Rescue and Salvage Plan; and Barge Operations Plan); and through implementation of the avoidance and minimization measures included in Mitigation Measures AQUA-1a and AQUA-1b. The effects would not be adverse for fall-/late fall-run Chinook salmon. CEQA Conclusion: Under Alternative 4A, the impact of construction of the water conveyance facilities on fall-/late fall-run Chinook salmon would not be significant except for construction noise associated with pile driving. Potential effects of construction on fall-/late fall-run Chinook salmon would be similar to those discussed for winter- run Chinook salmon (see Impact AQUA-37). Potential effects from increased turbidity and contaminant spills will be avoided and/or minimized through implementation of environmental commitments (see Impact AQUA-1 and Appendix 3B, Environmental Commitments: Environmental Training; Stormwater Pollution Prevention Plan; Erosion and Sediment Control Plan; Hazardous Materials Management Plan; Spill Prevention, Containment, and Countermeasure Plan; Disposal of Spoils, Reusable Tunnel Material, and Dredged Material; Fish Rescue and Salvage Plan; and Barge Operations Plan). Implementation of Mitigation Measures AQUA-1a and AQUA-1b would reduce potential pile driving noise impacts to less than significant. Mitigation Measure AQUA-1a: Minimize the Use of Impact Pile Driving to Address Effects of Pile Driving and Other Construction-Related Underwater Noise Mitigation Measure AQUA-1b: Monitor Underwater Noise and if Necessary, Use an Attenuation Device to Reduce Effects of Pile Driving and Other Construction-Related Underwater Noise.
2762	304	[Page] 4.3.7-125 [Line] 1: Chapter 11 of the Public Draft EIR/EIS states that the dual criteria for impact pile driving are 206 dB [decibels] for the peak sound pressure level and 187 dB cumulative for fish larger than 2 grams. In the example of cofferdam construction, based on an attenuation rate of 4.5 dB per doubling of distance, cumulative exposures to pile driving sounds could result in injury of fish up to 858 meters from the source piles. This conclusion and potential for behavioral effects on fish should be included in the NEPA and CEQA effects as well.	These effects are described for delta smelt on page 4.3.7-13 and Chinook salmon on page 4.3.7-44 and then referenced in subsequent NEPA and CEQA effects sections for other species.
2762	305	[Page] 4.3.7-135 [Line] 5: A 17% or 19% increase in egg mortality for any given year is significant; this is especially true if that year type occurs over a string of years. That said, both the relative and the absolute value show an increase in egg mortality, which is not	The mortality under the baseline is so low that any raw increase (in this case, it was only 0.4% or 0.6%) will cause a large relative increase. If results had been presented as survival instead of mortality, the absolute changes would have stayed at 0.4 and 0.6%, but the relative changes would also have been <1% difference in survival between model scenarios.

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		consistent with the conclusion that ". . . this increase would not cause an overall effect to fall-run Chinook salmon." Additional explanation of how the author came to this conclusion should be included.	No revisions were made in response to this comment.
2762	306	[Page] 4.3.7-159 [Line] 25: Confirm timing of species life stages analyzed for effects.	The specific timing of species presence has been an ongoing topic of discussion amongst the agencies. The project proponents met with the fish and wildlife agencies several times during 2012 and 2013 and collaboratively developed the tables in Section 2A. The goal was to record the months of general presence with an understanding that individual fish may occasionally be seen at times outside these periods.
2762	307	[Page] 4.3.7-168 [Line] 12: "Flows in the Sacramento River upstream of Red Bluff were examined for juvenile fall-run migrants during February through May." Confirm timing of species life stages analyzed for effects. Juvenile emigration at Red Bluff occurs between December [and] April (Martin et al. 2001).	Please see response to comment 2762-306.
2762	308	[Page] 4.3.7-168 [Line] 16: Confirm timing of species life stages of temperature analysis effects determination.	Please see response to comment 2762-306.
2762	309	[Page] 4.3.7-183 [Line] 1: "Mitigation Measure AQUA-78d: Slightly adjust the timing and magnitude of Shasta, Folsom, and/or Oroville Reservoir releases, within all existing regulations and requirements, to ameliorate changes in instream flows that would cause an adverse effect to fall-run Chinook salmon." The discussion needs to summarize which months and factors are driving these impacts, such as elevated temperatures or reduced flows in which months and identify in which ways reservoir releases will alleviate these impacts. The term 'slightly' should be more clearly defined as it is vague and subject to interpretation; alternatively the term could be deleted.	The magnitude of this adjustment is unknown at this time and would not be known until this was implemented, although we know it is small and, therefore, we include the tem "slightly" to demonstrate this. However, as noted in the new Appendix 11E in the Final EIR/S, Sensitivity Analysis to Confirm RDEIR/SDEIS Determinations for Fish and Aquatic Species Using Updated Model Outputs for Alternative 2D, 4A, and 5A, there would be no need for Mitigation Measure AQUA-78d if 2010 and 2015/BA modeling had been used in this analysis because the Impact AQUA 78 determination would not be adverse and less than significant. These two modeling versions have been updated to better reflect the system operations under Alternative 4A from the RDEIR/SDEIS modeling, which included some assumptions that were no longer valid.
2762	310	[Page] 4.3.7-198 [Line] 26-28; [Page] 4.3.7-199 [Line] 1-21: We [CDFW] assume spring-run is suitable for use as a proxy for juvenile steelhead. However, the number utilized for spring-run is based on a bioenergetics model. Therefore, the percentage of population impacted given for spring-run would not be valid for steelhead unless the population sizes are the same. Additionally, the CEQA conclusions in this section (and potentially others) should clearly discuss the interaction of the NDD [north Delta diversions] and SDD [south Delta diversions] impacts as they relate to predation. This would include clarification of uncertainties associated with NDD impacts and the commitment to and implementation of performance standards.	Timing of emigration was the main consideration with respect to assuming that spring-run Chinook salmon would be a reasonable proxy for steelhead. As the commenter notes, the population sizes would differ; however, as described in the methods for the bioenergetics model (public draft BDCP, Appendix 5.F, Section 5.F.3.2.1.2), the proportion of the diet attributable to a given prey item goes down as the prey becomes rarer in the environment, so this would tend to give a lower consumption of steelhead which, combined with greater size of juvenile steelhead, could result in a similar per capita impact to spring-run Chinook salmon. Generally, the effects of predation in the EIR/EIS were analyzed using different methods at the south Delta diversions compared to the NDD, thus making it difficult to quantify a combined predation effect from both diversion facilities. In addition, the south Delta entrainment analysis assumes a certain level of predation for fish entrained into Clifton Court Forebay (before reaching the salvage facilities), while several of the migratory analyses incorporate flow-survival relationships that are believed to be influenced by predator-prey interactions. Nevertheless, impact determinations for entrainment (which includes predation) related effects reflect potential impacts at both the NDD and south Delta export facilities. The Lead Agencies are including a Collaborative Science and Adaptive Management Program (CSAMP) into the proposed project which will, among other things, inform and improve the fish screen design and intake

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			operations to minimize entrainment and operational related effects to fish species migrating past the NDD. As part of the CSAMP, monitoring and research actions will be conducted prior to and during north Delta intake operations to address the uncertainty surrounding the effects of the NDD.
2762	311	[Page] 4.3.7-211 [Line] 14: Water year types must be treated independently in order to fully evaluate project effects and therefore cannot be combined to summarize the relative difference between mean flows. We [CDFW] recognize the challenges of presenting large quantities of data but we also recognize the need for extremes to be presented in addition to the means in order to fully evaluate the impacts.	Wherever possible, results are presented as both individual water year types and as all water year types combined for full disclosure and to fully evaluate potential project effects. In the example noted by the commenter, the appendix referred to in the text, Appendix C, CALSIM II Model Results Utilized in the Fish Analysis, has the information presented on both ways, but for brevity, only the effects for all water year types combined are mentioned in the text.
2762	312	[Page] 4.3.7-211 [Line] 34: "The effect of H3_ELT [Early Long Term] on mean flow and water temperature in the American River would be negligible although increased exceedances of the 56°F temperature threshold indicate a negative effect to steelhead spawning and egg incubation conditions." This sentence seems contradictory in that the effect is stated as negligible, yet exceedances indicate a negative effect to steelhead spawning and egg incubation conditions. 56 degrees is not an optimal egg incubation temperature. It is sub-optimal; therefore, any excursions past 56 are detrimental to year classes on a population level. Richter and Kolmes (2005) concluded that egg mortality increased as incubation temperatures exceeded 10°C (50°F) and substantial mortality may occur when temperatures exceed 13.5°C to 14.5°C (56.3°F to 58.1°F). Based on experience at hatcheries in the Central Valley, optimal incubation temperatures appear to be in the 7°C to 10°C (44.6°F to 50°F) range (Myrick and Cech 2004). California's steelhead management plan (McEwan and Jackson 1996) suggests a slightly higher temperature range (from 9°C to 11°C [48.2°F to 51.8°F]).	The text has been clarified based on the comment. However, the text does not state that 56 degrees F is an optimal temperature. While we agree that other temperatures could have been used in the evaluation based on the various scientific findings, the value was chosen to remain consistent with previous biological opinions by NMFS.
2762	313	[Page] 4.3.7-212 [Line] 11: "Flows in the Mokelumne River at the Delta were examined during the January through April steelhead spawning and egg incubation period (Appendix 11C, CALSIM II Model Results utilized in the Fish Analysis). Mean flows under H3_ELT [early Long Term] throughout this period would be similar to flows under Existing Conditions, with minor exceptions." "Mean flows in the Sacramento River at Keswick and upstream of Red Bluff during January through April under H4_ELT would generally be similar to flows under Existing Conditions, with minor exceptions." Please explain these "minor exceptions."	The analysis in the Final EIR/EIS has been modified based upon CALSIM II model results for the proposed project, Alternative 4A. We cannot list every exception in the text due to the document's already-large size. The appendix cited in this sentence (Appendix 11C) can guide the reader to the table showing these results.
2762	314	[Page] 4.3.7-212 [Line] 31: Mean flows below Thermalito Afterbay under H4_ELT [Early Long Term] would be 36% lower than existing conditions during January and February and up to 509% greater during April, yet it is stated that there would be no differences in mean water temperature for any months or water year types at that location. This conclusion	Water temperatures do not always correlate inversely with reservoir releases, particularly during cooler months like January and February.

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		needs more clarification on why the lesser or greater flows with the accompaniment of lower storage in Oroville will have no effect on temperature.	
2762	315	[Page] 4.3.7-253 [Line] 34: "As noted for other salmonids such as winter-run Chinook salmon, similar or slightly lower survival than for Existing Conditions based on the water conveyance facilities operations would be offset by the inclusion of bypass flow criteria, real-time operational adjustments, Environmental Commitment 6 Channel Margin Enhancement, Environmental Commitment 15 Localized Reduction of Predatory Fishes, and Environmental Commitment 16 Nonphysical Barriers. Overall, it is concluded that the impact to steelhead would be less than significant and no mitigation would be required." An impact of an operation cannot be offset with the same operation. Please replace "offset" with "minimized." In regard to EC 15 please refer to Appendix D. Appendix D states that these projects would be implemented as experimental/pilot efforts because these efforts may not result in any measurable benefit. The less significant conclusion is not supported, given the above discussion and the previous paragraph (lines 27-29) that states "Near-field effects of Alternative 4A NDD [north Delta diversion] on Sacramento River steelhead related to impingement and predation associated with the intake structures could result in negative effects on juvenile migrating steelhead, although there is high uncertainty regarding overall effects." Please provide further detail (e.g., performance standard and criteria) on how the project actions will ensure impacts are less than significant.	Regarding the use of the term "offset", this term is appropriate given that, for example, Environmental Commitment 16 Nonphysical Barriers is intended to reduce entry into the low-survival interior Delta, thereby providing offsetting of adverse effects close to the NDD. It is acknowledged that real-time operational adjustments would not be offsetting, in and of themselves. The text does reference the earlier discussions of other salmonids for more information on how bypass flow criteria and real-time operational adjustments can reduce impacts. Real-time operational adjustments would be based on biological and hydrological triggers developed by NMFS and CDFW to protect migrating salmonids. CM1 Water Facilities and Operation includes bypass flow criteria that will be managed in real time, based on triggers developed by CDFW and NMFS, to minimize adverse effects of diversions at the north Delta intakes on downstream-migrating salmonids. Additional detail is provided in Chapter 3, Section 3.6.4.2. Regarding performance standards related to the NDD, these are described in the California WaterFix BA submitted in August 2016, Chapter 3 (available at http://www.rcrcnet.org/sites/default/files/documents/FIX_BA_TOC.pdf) : The facility will, during operational testing and as needed thereafter, demonstrate compliance with the then-current NOAA, USFWS, and CDFW fish screening design and operating criteria, which govern such things as approach and sweeping velocities and rates of impingement. In addition, the screens will be operated to achieve the following performance standard: Maintain listed juvenile salmonid survival rates through the reach containing new north Delta diversion intakes (0.25 mile upstream of the upstream-most intake to 0.25 mile downstream of the downstream-most intake) of 95% or more of the existing survival rate in this reach. The reduction in survival of up to 5% below the existing survival rate will be cumulative across all screens and will be measured on an average monthly basis.
2762	316	[Page] 4.3.7-258 [Line] 32-34: It is problematic to refer to Delta smelt rationales when describing impacts of construction-related activities for other species. The rationale for Delta smelt explains that because they are not likely to be in the area, or may have a few individuals present during the construction window, that impacts are essentially not significant. This will not be the case with juvenile splittail, as they will be present during the construction window.	The rationale is speaking to the implementation of the avoidance and minimization methods, as opposed to the occurrence of the species.
2762	317	[Page] 4.3.7-331 [Line] 28: There is no assessment of entrainment at the North Delta Facilities in this section for Pacific lamprey.	The analysis cross-references the analysis for Alternative 4, which in turn cross-references the analysis for Alternative 1A in the DEIR/EIS (Impact AQUA-165).
2762	318	[Page] 4.3.7-331 [Line] 38: The statement regarding entrainment under Alternative 4A not being adverse on lamprey is unsubstantiated. It is widely known that the effects of entrainment are still unknown on lamprey (Goodman and Reid 2012). While analysis conducted for 4A shows a reduction of entrainment, the remaining level of entrainment is not presented and may have a significant effect on lamprey populations.	As with all CALSIM II-based analyses in the fish chapter, this analysis is conducted by assessing effects of an alternative relative to effects of the baseline. This necessary due to the limitations of CALSIM II, as discussed in Appendix 5A, Section A.3.3. Application of CALSIM II to Evaluate BDCP Alternatives. Therefore, a determination is made based on the incremental increase or decrease in an effect of an alternative relative to the baseline. A determination is not made based on whether a result in this case entrainment rate, under an alternative, is higher or lower than a threshold without considering what the result is in the baseline. To do so would constitute an inappropriate use of the CALSIM II outputs.
2762	319	[Page] 4.3.7-332 [Line] 20-23:	Please see response for Comment 2762-318.

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		Due to the uncertainty surrounding entrainment effects on Pacific lamprey, it is inappropriate to assume that impacts related to water operations are less than significant simply because operations under 4A are expected to reduce entrainment. Until the effects of entrainment are better understood at the population level for Pacific lamprey, there cannot be any certainty to impacts related to entrainment.	
2762	320	[Page] 4.3.7-352 [Line] 17: There is no assessment of entrainment at the North Delta Facilities in this section for river lamprey.	The text indicates that an analysis could not be conducted because too little is known about the species' life history.
2762	321	[Page] 4.3.7-352 [Line] 34-36: The same comments mentioned previously related to Pacific lamprey also apply here for river lamprey: [The statement regarding entrainment under Alternative 4A not being adverse on lamprey is unsubstantiated. It is widely known that the effects of entrainment are still unknown on lamprey (Goodman and Reid 2012). While analysis conducted for 4A shows a reduction of entrainment, the remaining level of entrainment is not presented and may have a significant effect on lamprey populations. Due to the uncertainty surrounding entrainment effects on Pacific lamprey, it is inappropriate to assume that impacts related to water operations are less than significant simply because operations under 4A are expected to reduce entrainment. Until the effects of entrainment are better understood at the population level for Pacific lamprey, there cannot be any certainty to impacts related to entrainment.]	Please see response for Comment 2762-318.
2762	322	[Page] 4.3.7 372-373 There are potentially significant but unpredictable landscape level trophic and fish population dynamic effects that could result from large-scale larval entrainment of striped bass and potentially American shad. The increase in larval striped bass entrainment is estimated to be 220%.	This comment reflects the analysis for Alternative 4A for striped bass and American shad as presented in Impact AQUA-201: Effects of Water Operations on Entrainment of Non-Covered Aquatic Species of Primary Management Concern. This analysis indicates that effects on Striped Bass and American Shad are significant and unavoidable. It should be noted that although this impact is considered significant and unavoidable in the EIR/EIS, subsequent impacts to later life stages and the population overall are uncertain. As described in Chapter 11, Fish and Aquatic Resources, density-dependence during the juvenile stages of the striped bass life cycle means that losses of early life stages do not necessarily translate into proportional reductions in abundance of older individuals, and entrainment has not recently been identified as a significant driver of juvenile abundance (Mac Nally et al. 2010; Thomson et al. 2010). In addition, American shad early life stages may rear to sufficiently large size above the Delta to avoid entrainment at the north Delta intakes.
2762	323	[Page] 4.3.7-306 [Line] 22: The assessment of NPB [non-physical barrier] effects provided here is highly speculative. If the NPB did impede adult sturgeon migration this could have a substantial impact on green and white sturgeon populations. Given the risks, assessing NPB effects on adult sturgeon migration, particularly at the reduced CWF [California WaterFix] river flows, should be a high priority element of the CWF targeted research and monitoring program.	The basis for the conclusion is provided in the analysis. Effects of NPB on target and non-target species would be a consideration in assessment of NPB effectiveness.
2762	324	[Page] 4.3.7-309 [Line] 33-38: The paragraph beginning here discusses temperature effects in terms of percentages,	Text has been modified to reflect the comment.

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		and equates changes of less than 5% as being no difference. Given that 5% of 60 degrees F is 3 degrees, and this level of change could be consequential for some species and life stages, the "5%" reference is a poor descriptor of change and benchmark for concern. Also, if the "big picture" change could be characterized generally warmer or colder, it would be helpful information.	
2762	325	[Page] 4.3.7-311, Table 11-4A-108: This table shows substantial effects, particularly in May and June. It would be useful if an explanation was provided for the underlying causes (and the relative contribution of the causes) for the effects. It would be particularly useful to know this for the NAA_ELT [No Action Alternative Early Long Term] vs. H3_ELT comparison, which has climate change factored out.	None of these changes would be considered substantial. Although the relative differences are large, they are not large considering the number of degree-days possible in a month. These values would equate to approximately 1/3 of a degree F on average in decreased temperature exceedance under the alternative, a negligible benefit of the alternative.
2762	326	[Page] 4.3.7-315, Table 11-4A-111: The substantial effects shown in the table for the Existing Conditions vs. H4_ELT comparison illustrate an important point. The point is that ELT [Early Long Term] conditions are predicted to be substantially degraded from today's conditions, and sturgeon and other species populations substantially diminished as a result. The degraded ELT conditions are in addition to the greatly degraded conditions of today, much of which is attributable to ongoing effects of the CVP and SWP. This circumstance is important context for assessing the importance of predicted [No Action Alternative] NAA_ELT vs. H3 and H4_ELT effects.	The analysis under the EIR/EIS compares only future conditions under both the NAA and alternatives for NEPA purposes. The topic of the comment will likely be considered as part of the Section 7 jeopardy and 2081 permit determination by the resources agencies.
2762	327	[Page] 4.3.7-323 [Line] 4: The discussion beginning here regarding flow exceedances references AFRP [Anadromous Fish Restoration Program] recommendations. It is important to note that the AFRP was developed outside the context of the CWF [California WaterFix]. To the extent flows below the NDDs [north Delta diversions] contribute to sturgeon production, the CWF de-couples outflow from earlier outflow/production relationships.	The uncertainties associated with using this analysis are discussed in the NEPA Effects section of this impact statement (Impact AQUA-150).
2762	328	[Page] 4.3.7-325 [Line] 16: Changes in through-Delta flows due to the CWF [California WaterFix] are briefly mentioned here. Reductions in flows between the NDDs [north Delta diversions] and the Sacramento-San Joaquin river confluence is the most substantial CWF environmental effect sturgeon will be exposed to. Chapter 4 and/or Chapter 11 should present modelling results for, and discuss, this specific physical effect. At present the specific influence of flow in this river reach on sturgeon production is not known, but given the magnitude of the physical effect, the effect on sturgeon production should be a major focus of the "targeted research and monitoring" mentioned at Line 24. The effect of flow in this reach on spawning migration initiation and passage [and] the effect of flow on juvenile survival through the reach should be high priority research and monitoring program elements.	The FEIR/FEIS does discuss potential effects of Alternative 4A through-Delta flows in Impact AQUA-150. The authors agree that the relationship between flows and sturgeon production should be a targeted research topic in the future, as indicated in the text.
2762	329	[Page] 4.3.7-375 [Line] 2-3: This is inconsistent with 4.3.4-26 lines 39-41 and 4.3.4-29 lines 29-30 which indicate potential adverse indirect effects on striped bass spawning in the Delta as opposed to	No additional analysis is necessary for the purpose of determining impact significance for these impacts.

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		river conditions. Please include similar discussion here.	
2762	330	[Page] 4.3.7-375 [Line] 6: It is unclear why flow and temperature on the Trinity River were evaluated for effects on striped bass. Generally, proofread for consistency for the Trinity River to check to see if analysis is being presented for species that are not present in the Trinity River such as the Sacramento-San Joaquin roach. This is confusing to the reader.	For completion, we include all potentially affected rivers and creeks, but we indicate in the text whether a species is expected to be found in the river or creek (for example, see Impact AQUA-202 for Alternative 1A).
2762	331	[Page] 4.3.7-403 [Line] 33: The CEQA conclusion for hardhead incorrectly refers to roach. Please proofread and ensure the analysis is correct as to roach.	The text has been revised per the comment.
2762	332	[Page] 4.3.7-426 [Line] 38: Beginning here, the document presents a summary of the NEPA and CEQA effects of Impact AQUA-203 ("rearing") on the California bay shrimp [CBS] (Crangon franciscorum). The conclusions are based on modelling results presented in Appendix A, Chapter 11, Table 11-mult-13 from application of Kimmerer (2009) findings regarding the relationship between X2/flow on CBS abundance. Although the model application approach is reasonable, conclusions in the NEPA Effects (not adverse) and the CEQA Effects (less than significant) appear arbitrary and poorly supported.	The rationale for the conclusions is presented in the discussion, i.e., small differences between Existing Conditions/NAA and Alternative 4A.
2762	333	[Page] 4.3.7-437 [Line] 4: The document asserts that the differences in abundance between NAA_ELT [No Action Alternative Early Long Term] and the Alternative 4A scenarios are "small," and thus are insubstantial. These assertions raise important questions about the biological effects of the allegedly small changes, and detailed differences in results between water year types and between scenarios 4A (H3) and 4A (H4). The available scientific information suggests that the abundance of CBS [California bay shrimp] in the estuary has already been substantially reduced by the CVP and SWP through reductions in winter-spring flows, particularly in drier years. Thus the predicted incremental losses in abundance (ranging from 2% to 7%) attributable 4A (H3) operations should be viewed as adverse and an unacceptable effect on a highly impaired population. The same "Kimmerer 2009" approach could and should be used to describe the environmental baseline for CVP/SWP operations on CBS abundance. The differences in abundances predicted for H3 and H4 are quite substantial (averaging 8%, and ranging from 3 to 18%), emphasizing the potential benefit of protecting winter-spring flows, which H3 fails to do. A close examination of Table 11-mult-13 also reveals important year type-related scenario effect differences. It is clear that the largest negative consequences (-7%) of 4A (H3) operations relative to NAA_ELT operations occur in years designated as Below Normal or Dry. This is an important observation, because years of this type are years when the population is already heavily impacted by low flows due to low precipitation and CVP/SWP operations. Given the importance of the CBS as a food source for other severely impaired key species (e.g., white sturgeon), reductions in CBS biomass of the magnitude suggested by the modelling results in Table 11-mult-13 for proposed 4A (H3) operations should	The commenter does not provide a specific reference for the suggestion that California bay shrimp "abundance has already been substantially reduced by the CVP and SWP through reductions in winter-spring flows, particularly in drier years." As with all the analyses, the analysis focuses on the incremental effect of Alternative 4A in relation to baseline conditions. On the basis of the range of potential flows from Alternative 4A (i.e., within the range provided for H3_ELT and H4_ELT), it is concluded that there would not be an adverse effect. The range of differences for all alternatives was also considered sufficiently small to warrant the same conclusion.

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		be viewed as a significant and adverse potential impact of the proposed project.	
2762	334	[Page] 11-53; 11-61: Table 11-8 and 11-11 do not match for timing of fall-run within the project area. Table 11-11 only shows fall-run juveniles in May, but should also include the month of June as in Table 8.	The text has been revised as suggested.
2762	335	[Page] 11-141 [Line] 22: The word "variable" should be plural.	The correction has been made in Chapter 11, Fish and Aquatic Resources, of the Final EIR/EIS.
2762	336	[Page] 11-141 [Line] 29: "Murphy et al. 2011" is cited here and perhaps elsewhere, but not listed in the Chapter references.	The following entry has been added to the references section to correspond to the Murphy et al. 2011 citation: Murphy, D. D., Weiland, P. S., Cummins, K.W. 2011. A critical assessment of the use of surrogate species in conservation planning in the Sacramento-San Joaquin Delta, California (U.S.A.). Conservation Biology 25:873-878.
2762	337	Appendix D: It is not clear in this section which elements apply to HCP/NCCP Alternatives and which elements apply (or do not apply) to Alternative 4A. This section should clearly delineate for the reader which elements are included in 4A and which elements are not. Examples are: 1) Biological objectives in general 2) Inclusion of Fremont Weir operations in RTO [real-time operations] as CM2 is a separate project under 4A. Integration of Yolo Bypass in general as a separate program under 4A. 3) Adaptive Management and Adaptive Management Fund 4) Implementation Office 5) Environmental Flow Program 6) Monitoring and Research -- Table 3.6-4 Table 3.6-5 Table 3.6.6, etc. include biological objectives; explain how these would apply not apply to 4A. How would they be modified for 4A? 7) Annual Delta Water Operations Plan 8) Annual Progress Report 9) Annual Delta Water Operations Report 10) Five-Year Comprehensive Review/5-Year Implementation Plan 11) Twenty-five-year Climate Change Comprehensive Review 12) Suspension or Revocation of the State Permit 13) Authorized Entity Group	Chapter 3 of the EIR/EIS contains information comparing the listed elements of the BDCP to the non-BDCP alternatives. The information in Appendix D of the RDEIR/RDEIS now appears as Appendix 11F in the Final EIR/EIS. The AMMs now appear as Appendix 3B. 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.

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		14) Permit Oversight Group 15) Evaluating and determining whether the diversion structures are achieving performance standards for covered fishes over the course of operations To the extent that criteria on the Conveyance operations (e.g., see page D.3-19) and Environmental Commitments are carried forward into the 4A project description, please more clearly, comprehensively and consistently highlight in Section 4.1.2, since those are components of the Project Description and as currently formatted they are difficult to discover and parse out from the modifications to Alternative 4.	
2762	338	[Page] D.1-1: Please clarify the alternatives to which Section D.1-1 applies. Projects that are referenced in this section that would serve as mitigation for other projects (for example, to meet mitigation requirements under the 2008/2009 biological opinions), or have funding-based restrictions against their use as mitigation, should not be proposed as mitigation for Alternative 4A. In addition, please note that Proposition 1 funds cannot be used to pay the costs of mitigation of Alternative 4A. Also, please note that in the development of BDCP, decisions had yet to be made about the appropriateness of specific projects for "credit" under that plan.	Please see response to comment 2762-337.
2762	339	[Page] D3.3-10 [Line] 38-41: There is reference to a strong adaptive management and monitoring program to guide the experimental processes of [conservation measures] CM 15 and CM 16. Please specify how this adaptive management and monitoring program is applicable to [environmental commitments] EC 15 and EC 16 under Alternative 4A.	The collaborative science and adaptive management program would apply the most up to date science to a process of monitoring and adjusting project operations, including for EC's 15 and 16 to reduce potential effects on listed species and water quality. This program presents this process, which will proceed as research and monitoring activities proceed, informing specific adaptive actions. For more information regarding the collaborative science and adaptive management program please see Chapter 3 of the FEIR/EIS and Master Response 33. For more information regarding Environmental Commitments please see Appendix 3B of the FEIR/EIS.
2762	340	[Page] D.3-11 [Line] 6-8: There are striped bass that overwinter in the Cache Slough during fall. Striped bass upstream spawning migration timing overlaps with downstream juvenile migration timing for juvenile salmonids. Fremont Weir overtopping events have resulted in large numbers of adult striped bass observed during fish rescue operations in the Fremont Weir post flow reduction. It is likely that there will be striped bass that utilize this migration corridor if is made available via future Fremont Weir operations. Future evaluation of the Yolo Bypass [YB] as a migration corridor for striped bass should be evaluated under an adaptive management program to assess whether Sacramento River predation reduction is offset by increased YB predation and to what degree. Please consider adding this study to 3.4.1-5.	The proposed project does not include any revisions to Fremont Weir operations. However, the suggested study will be considered as part of the implementation of the Adaptive Management Program.
2762	341	[Page] D.3.11 [Line] 42-49: The updated Section 7 Hydro Analysis does not show appreciable difference in the proportion of flow into the interior Delta for the proposed action/Alternative 4A at Georgiana Slough which is linked in the analysis to the potential for entrainment. This	The BA was submitted for consultation under Section 7 of the ESA in August 2016. The analysis contained in the Biological Asessment includes substantial detail as to the hydrodynamic and interior-Delta entrainment effects from the proposed project (Alternative 4A). On the basis of these results, inferences regarding specific effects to different runs and populations of Chinook salmon are provided, including fall-run/late

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		section refers to winter-run, then states the overall entrainment would be lower, but it doesn't parse between rivers and runs of salmon. Please specify where/which runs contribute to the overall entrainment. Is it primarily a reduction in San Joaquin fall-run due to less south Delta pumping or does it also refer to reduced entrainment of listed WR [winter-run] and SR [spring-run] which do not reside in the San Joaquin River system? IOS model shows overall decline in WR escapement due to reduced in-Delta survival without increased salvage benefit. Please update this section as new Section 7 analysis becomes available.	fall-run as part of the associated Essential Fish Habitat analysis.
2762	342	[Page] D.3.11 [Line] 50-14 on next page: Cut and paste error. Two repeated paragraphs.	The redundant paragraph has been removed from the appendix, which is 11F in the Final EIR/EIS.
2762	343	[Page] D.3-20 [Line] 19-20: "Operations will be managed at all times to avoid increasing the magnitude, frequency, or duration of flow reversals in Georgiana Slough above pre-NDD [north Delta diversion] operations levels." Please clarify this new language, as it is subject to interpretation. Does this mean conditions existing today? Or does this mean conditions at the start of operations 15 years from now including climate change, increased demand, and sea level rise? Also please clarify if this means that there will be an increase in duration and frequency of periods when there is no net downstream flow, i.e., conditions representing high slack tide.	The text referred to in this comment has been modified in the Final EIR/EIS.
2762	344	[Page] D.3-20 [Line] 33-34: "Upon approval of the BDCP a work group will be formed by the AMT [Adaptive Management Team] to design and implement a research program to address the key uncertainties identified in Table 3.4.1-5." How will this carry over to 4A?	Alternative 4A does include an adaptive management and monitoring program, which is discussed in Section 3.6.4.4 of the Final EIR/EIS. Collaborative science and adaptive management will support the proposed project by helping to address scientific uncertainty where it exists, and as it relates to the benefits and impacts of the construction and operations of the new water conveyance facility and existing CVP and SWP facilities. For more information on adaptive management and monitoring see Master Response 33.
2762	345	[Page] D.3-21 [Line] 4-7: "Bypass flow criteria can follow Table 3.4.1-2 alone if other measures developed through research can minimize effects on migrating covered fish past the north Delta diversions (e.g., floating surface structures diverting fish to the opposite side of the Sacramento River from the diversions)." Is this applicable to 4A? Bypass criteria are for through-Delta survival and pulse protection is for survival at the screens. Diverting fish away from the screens will only serve to address impacts in the screen reach. Simply moving fish to the other side of the river by the intakes may not have an effect in downstream or through-Delta survival. "The objectives of the north Delta diversion bypass flow criteria include regulation of flows to 1) maintain fish screen sweeping velocities; 2) reduce upstream transport from downstream channels in the channels downstream of the intakes; 3) support salmonid and pelagic fish transport and migration to regions of suitable habitat; 4) reduce losses to predation downstream of the diversions; and 5) maintain or improve	Yes, these statements are applicable to Alternative 4A. The pulse protection and other bypass flow criteria, combined with real-time operational adjustments, are meant to protect fish as they migrate past the intakes and through the Delta. They address both near field (at the screens) and far field (flow-related) effects.

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		rearing habitat conditions in the north Delta."	
2762	346	[Page] D.3-23, Footnote 5: Please provide clarification on how RTO [real-time operations] for Fremont Weir will be incorporated into Alt. 4A.	The new proposed project, Alternative 4A, no longer includes Conservation Measure 2 (Yolo Bypass Enhancements). Instead, Yolo Bypass Enhancements would be assumed to occur as part of the No Action Alternative because they are required by the existing BiOps. For information on Fremont Weir operations under the BDCP HCP alternatives, please see Section 3.6.4.2 In Chapter 3 of the Final EIR/EIS.
2762	347	[Page] D.3.-27, Table 3.4.1-5: In general this table needs to be edited or a new table needs to be created to be consistent with 4A. First two lines refer to studies to determine if spring outflow and Fall X2 are needed in light of conservation measures to be implemented under HCP/NCCP. Because 4A has no conservation measures spring outflow and Fall X2 are necessary, obviating the need for the studies. In addition, the Department [CDFW] proposes two studies for inclusion, either in the BDCP alternatives or in the new alternatives' adaptive management program. Key Uncertainty #1: The effect of reduced Sacramento River flow below the NDDs [north Delta diversions] on adult sturgeon migration. Reduced flows have the potential to attenuate migration cues or degrade migration conditions. Proposed Research Activities: Intense monitoring of the timing and duration of adult sturgeon (green and white) migration through the low flow reach (confluence to NDDs) at various flow rates. Monitoring to be accomplished using both acoustic tag and underwater (e.g., Didson or sonar technology). Time Frame: Beginning immediately, and extending through the first several years of NDD operation. Key Uncertainty #2: The effect of reduced southern Delta exports, and less negative OMR [Old and Middle River] and Qwest [San Joaquin River past Jersey Point] flows on Delta smelt rearing and rearing habitat in the lower San Joaquin River. Proposed Research Activities: Part I: A thorough review of historical data to understand the factors that led to the collapse of juvenile Delta smelt rearing in the lower San Joaquin River and southern Delta in the early 1970s, and the role through-Delta water conveyance played in that collapse. Part II: Intense monitoring of the annual movement of adult Delta smelt into the lower San Joaquin River and central Delta, the extent of spawning in the region, the growth, survival, and distribution of subsequent juvenile smelt, and regional habitat conditions (i.e. flows, food density, temperature, turbidity, etc.). Time Frame: Immediate initiation of historical data review (Part I), with a product within 5 years that is utilized to develop hypotheses to be addressed during intense monitoring phase (Part II). Part II would begin 5 years prior to initiation of northern Delta diversions, and extend through the first five years of diversions (or until 2 Wet or Above Normal Year Types and 2 drier Year Types have been monitored). Key Uncertainty #3: The effect of reduced Sacramento River flow below the NDDs on juvenile salmonid outmigration. Reduced flows have the potential to reduce survival of	Appendix D of the RDEIR/SDEIS was included to provide updated information from the 2013 Public Draft that is relevant to Alternative 4, which is included in the FEIR/EIS. Some but not necessarily all of the content in this appendix is applicable to Alternative 4A. Because Alternative 4A incudes Fall X2 and spring outflow assumptions but are the subject of continuing uncertainty and debate, these studies may be needed to inform future conveyance facility operations. The remaining portions are recitations of Table 3.4.1-5 contents. 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. For more information regarding adaptive management and monitoring please see Master Response 33 and Chapter 3 of the FEIR/EIS. For more information regarding operational criteria please see Master Response 28.

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		out-migrating salmonids. Recent hydro analysis being conducted through the Section 7 process suggests that entrainment into the interior Delta may not decrease substantially under 4A. Thus, evaluation of bypass flows and subsequent adaptive management may be necessary to avoid impacts to listed runs of salmonids originating in the Sacramento River. Proposed Research Activities: Intense monitoring of the timing and duration of outmigration through the reduced flow reach to Chipps Island at various flow rates. Monitoring to be accomplished using both acoustic tag and other tagging studies. Beginning immediately, and extending through the first several years of NDD operation.	
2762	348	[Page] D.3-34 [Line] 35-38: Please provide references for these studies.	The text intended to reference general Delta channel movement studies and should have read: "Studies of through-Delta salmonid movement have shown that fish enter channels in similar or slightly lower proportion to flow (Cavallo et al. 2015), and if true for the Bypass, would have resulted in over 3% of winter-run and spring-run Chinook salmon entering the Bypass in 1997-2011 (Acierto et al. 2014)." Acierto, K. R., J. Israel, J. Ferreira, and J. Roberts. 2014. Estimating juvenile winter-run and spring-run Chinook salmon entrainment onto the Yolo Bypass over a notched Fremont Weir. California Fish and Game 100(4):630-639. Cavallo, B., P. Gaskill, J. Melgo, and S. C. Zeug. 2015. Predicting juvenile Chinook Salmon routing in riverine and tidal channels of a freshwater estuary. Environmental Biology of Fishes 98(6):1571-1582.
2762	349	[Page] D.3-156, Table 3.6-1 5 Monitoring Actions for Covered Fish Performance Focus Area: It is unclear if this section needs to be edited, updated, or replaced for compatibility with 4A.	This comment now refers to material that is now within Appendix 11F of the Final EIR/EIS. Appendix 11F is a presents substantive revisions to the BDCP that were made subsequent to publication of the public draft (November 2013). These revisions, which were made to address key comments and ongoing consultation with agencies and stakeholders, are reflected in the analysis of Alternative 4 in the RDEIR/SDEIS, and where applicable in Alternatives 4A, 2D, and 5A. Please see Master Response 33 for more information regarding adaptive management and monitoring.
2762	350	[Page] 1-2 [Line] 15: Please restate as the "Natural Community Conservation Planning Act."	This change has been made in Chapter 1, Introduction, of the Final EIR/EIS.
2762	351	[Page] 1-18 [Line] 22: Take of species designated as a candidate species is also prohibited under Fish and Game Code, section 2085.	The regulatory language has been modified.
2762	352	[Page] 1-19 [Line] 1-11: This paraphrases the regulations and omits or modifies some provisions. Please either quote completely and accurately or note that this is the drafter's summary.	A statement was added to the text to note that the discussion of Title 14 of California Code of Regulations (CCR), Sections 783.4(a) and (b) is paraphrased.
2762	353	[Page] 1-19 [Line] 16: Please restate as the "Natural Community Conservation Planning Act."	This change has been made in Chapter 1, Introduction, of the Final EIR/EIS.
2762	354	[Page] 1-19 [Line] 20-22: Suggest using language from Fish and Game Code, section 2805(h), which defines a	The Final EIR/EIS adequately defines a natural community conservation plan.

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		natural community conservation plan.	
2762	355	[Page] 1-20 [Line] 1-4: CDFW does not agree that 14 C.C.R. section 1.72 defines "river, stream or lake" for purposes of Fish and Game Code section 1602. Specifically, the Fish and Game Commission did not have authority, and did not intend, to adopt 14. C.C.R. section 1.72 for that purpose. Instead, the available rulemaking records indicate the Commission adopted section 1.72 as part of its sport fishing regulations. CDFW has not relied on section 1.72 as a matter of law to define "stream" in Fish and Game Code section 1602. Please delete this sentence.	This sentence has been removed.
2762	356	[Appendix 3B]: Please reference the specific section where Resource Restoration and Protection Principles are defined.	Please refer to the Final EIR/EIS, Appendix 3B is a support document to Chapter 3, Description of Alternatives, where the Resource Restoration and Protection Principles are defined in Section 3.4 of Chapter 3 and presented in Table 3-12.
2762	357	[Appendix 3B]: The crosswalk between Environmental Commitments (ECs) in Alt. 4A and Conservation Measures (CMs) in other alternatives is still not clear. Appendix 3B should clearly define which CM each of the numbered ECs refer to (for example, in table 3B-1, which only covers best management practices), and reference changes from the BDCP, either in Appendix D or as described below. Some of these definitions are buried in parentheses in sections describing CMs, but not all of them are defined this way. [The description of CM7 riparian restoration refers to EC 3 and EC 7 is not linked back to a CM. We [CDFW] suggest revising this section because CM3 was designed to protect natural communities, and CM7 was designed to restore riparian. It would make sense for EC 7 to be linked with CM7 and for EC 3 to be linked with CM3. Please include changes in acreage targets in the description of the link between each of the numbered ECs and corresponding CMs. For example, CM7 committed to 5,000 acres of restored riparian and EC 7 commits to restore/create 251 acres. Please also include these differences in acreages between the BDCP public draft and Alt 4A in the crosswalk table suggested above.]	Appendix 3B has been revised to differentiate between activities applicable to BDCP and non-BDCP alternatives. Chapter 3 of the Final EIR/EIS further defines which elements are applicable to the alternatives. Chapter 12 of the Final EIR/EIS, Section 12.0.6.2, compares the effects and proposed conservation by alternative.
2762	358	[Page] 3B-154 [Line] 4-5: The description of CM7 riparian restoration refers to [environmental commitments] EC 3 and EC 7 is not linked back to a CM [conservation measure]. We [CDFW] suggest revising this section because CM3 was designed to protect natural communities, and CM7 was designed to restore riparian. It would make sense for EC 7 to be linked with CM7 and for EC 3 to be linked with CM3.	The text in the Final EIR/EIS has been changed to say Environmental Commitment 7 instead of Environmental Commitment 3.
2762	359	[Appendix 3B]: Please include changes in acreage targets in the description of the link between each of the numbered ECs [environmental commitments] and corresponding CMs [conservation measures]. For example, CM7 committed to 5,000 acres of restored riparian and EC 7 commits to restore/create 251 acres. Please also include these differences in acreages between the BDCP public draft and Alt 4A in the crosswalk table:	Please see Chapter 12, Section 12.0.6.2 of the Final EIR/EIS to compare the effects and proposed conservation by alternative.

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		[The crosswalk between Environmental Commitments (ECs) in Alt. 4A and Conservation Measures (CMs) in other alternatives is still not clear. Appendix 3B should clearly define which CM each of the numbered ECs refer to (for example, in table 3B-1, which only covers best management practices), and reference changes from the BDCP, either in Appendix D or as described [above]. Some of these definitions are buried in parentheses in sections describing CMs, but not all of them are defined this way.]	
2762	360	The effects analyses and CEQA conclusions associated with Alternative 4A (described in Section 4) include frequent references to both minimization measures unique to Alternative 4A, and AMMs [avoidance and minimization measures] developed in support of Alternative 4 and described in Appendix D of the REIR/EIR or the 2013 Public Draft. Occasionally the minimization measures described in Alt 4A are not consistent with the AMMs developed for Alternative 4, although both are referenced in an effects analysis. This overlap between Alternative 4 and 4A creates confusion regarding the specific measures that will be implemented to avoid and minimize impacts, and achieve a "less than significant impact." Please carefully review mitigation measures proposed under Alternative 4A and AMMs proposed under Alternative 4 to ensure that their requirements are consistent and complimentary. For example, if Alternative 4A is implemented, the final document should be constructed in such a way that the lead and responsible agencies can easily refer to specific sections to determine pre-project and construction minimization measures required for each special status species and associated mitigation commitments. In addition to this general comment, CDFW staff submitted several specific comments regarding potential conflicts between Alt 4A mitigation measures and Alt 4 AMMs in this table, and in comments to Section 4.3.8.	The AMMs listed in Appendix 3B would be applicable to both Alternatives 4 and 4A, as written. Additional mitigation measures are identified in the analysis for each alternative. In addition, for any project approval, the Lead Agencies will adopt findings and a decision that clearly documents the adopted mitigation, avoidance and minimization measures for the approved alternative. Under CEQA, a Mitigation Monitoring and Reporting Program also will be adopted so that the lead and responsible agencies can easily reference and identify required measures and implementation responsibilities.
2762	361	[Page] D-93 [Line] 13: Many of the bullet points within this section are too general to benefit all covered species. For example, generally accepted relocation conditions and protocol (page D-94, lines 36-42) for California tiger salamander (CTS) are different from the standard conditions and protocol for giant garter snake. We [CDFW] suggest adding text to make it clear that the measures described in the 2081b permit prevail if/when they differ from these measures for species listed under CESA [California Endangered Species Act].	The bullets listed under AMM2 are general measures and will be available to avoid and minimize effects on terrestrial resources to varying degrees based on the resource in question. If there are subsequent changes for the DFW's 2081(b) permit, those permit conditions will prevail. No change has been made to this text.
2762	362	[Page] D-101 [Line] 19: We [CDFW] suggest adding text from Mitigation Measure BIO-170 here to ensure consistency between [avoidance and minimization measure] AMM 11 and BIO-170. Specifically, please restate the requirements to establish a 250-ft. buffer surrounding sensitive plant species occurrences when they occur in, or adjacent to, construction and can feasibly be avoided (see page 4.3.8-322 lines 24-36). Also restate the requirement to compensate for loss of individuals or occupied habitat of special-status plant species through the acquisition, protection, and subsequent management in perpetuity of other existing occurrences as a 2:1 ratio (see page 4.3.8-322 lines 37-45).	Mitigation Measure BIO-170 includes reference to a 250-foot exclusion zone and the 2:1 protection.
2762	363	[Page] D-103 [Line] 9: Please check and revise [avoidance and minimization measure] AMM 18 for	AMM18 has been revised to reflect the most recent measures in the 2081(b) permit application.

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		consistency with the 2081b [incidental take] permit application.	
2762	364	[Page] D.3-110 [Line] 24-25: CDFW cannot authorize take of greater sandhill crane outside of the NCCPA [Natural Community Conservation and Planning Act] context. As a result, CDFW review of the "Powerline Plan and Analysis" will not result in such approval and any take resulting from powerline construction in the implementation of Alternative 4A would be unlawful.	The EIR 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. The final transmission line design will be determined in consultation with the wildlife agencies and wildlife agency-approved, qualified biologist familiar with crane biology. AMM20 in its entirety appears in Appendix 3B of the EIR/EIS and is applicable to all alternatives considered in the EIR/EIS, including Alternatives 4 and 4A. 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: • 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. • Underground new lines in high-risk zones of the greater sandhill crane winter use area. • 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 all new lines. 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 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. • Final transmission line design will be determined in coordination with the wildlife agencies and wildlife agency–approved, qualified biologist familiar with crane biology, to achieve the performance standard and ensure the measures described herein are incorporated.

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			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. 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. The EIR/EIS has evaluated potential impacts to the level of detail of engineering design that is available at this point.
2762	365	[Page] D.3-115 [Line] 17: We [CDFW] suggest deleting the word "marsh." Pre-project surveys for TRBL [tricolored blackbird] colonies should not be limited to marsh habitat. TRBL is known to establish nesting colonies in a wide range of habitat types including triticale fields, Himalayan blackberry stands, and mustard. Instead, add a sentence listing all possible habitat types that could be occupied by a TRBL nesting colony, as described in Section 4.3.8, to ensure that pre-project surveys have the highest possibility of identifying colonies in, or adjacent to, project activities.	"Marsh" was deleted from AMM21. AMM21 specifically says "Surveys will be conducted in suitable habitat" and therefore rather than listing all potential habitats currently known to be used, the measure will remain as is to be applicable for a broader interpretation in case they are found colonizing other habitats. No change has been made in response to this comment.
2762	366	[Page] D.3-115 [Line] 20-22: We [CDFW] suggest simplifying this reference to require consulting the UC Davis tricolored blackbird portal project which includes surveys outside Suisun Marsh that could overlap with project activities geographically.	The AMM for tricolored will be modified to say that the biologist will consult with the UC Davis tricolored blackbird portal project as needed to obtain the most up to date information on colonies that may occur in the vicinity of work areas.
2762	367	[Page] D.3-115 [Line] 24-28: This AMM [avoidance and minimization measure] is too vague and doesn't require any avoidance of nesting colonies if the project proponent deems avoidance "infeasible." It is not clear what is meant by the following sentence, and how this confers protection to the species given the regulatory approach for the new preferred alternative: "AMMs will be incorporated into the project design and other portions of the application package prior to submission for coverage under the BDCP."	The commenter is responding to the language in AMM 21 "Covered activities must avoid active tricolored blackbird nesting colonies and associated habitat during the breeding season (generally March 15–July 31). Avoidance measures will include relocating covered activities away from the nesting colonies and associated habitat to the maximum extent practicable. The water conveyance facilities can't be relocated without being subject to substantial redesign and additional environmental review and therefore would not be considered practicable. Restoration projects do have the flexibility to time activities and select restoration sites to minimize effects on biological resources, including listed species such as tricolored blackbird. Restoration projects will be subject to their own environmental review, which will identify and have measures for dealing with the presence of tricolored nesting colonies. DWR is currently seeking a 2081 to address the potential for take of tricolored blackbird. This sentences was deleted from the AMM to avoid confusion.
2762	368	[Page] D.3-115 [Line] 33-36: Suggest changing this to a requirement for a "CDFW-approved biologist with tricolored blackbird experience."	AMM21 was revised accordingly.
2762	369	[Page] D.3-115 [Line] 39-41: Suggest rewording this sentence: "Exceptions to the minimum non-disturbance buffer distance will be evaluated and approved by wildlife agencies on a case by-case basis."	The change has been made as suggested.

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2762	370	[Page] D.3-124 [Line] 13: We [CDFW] suggest replacing "any kind of vegetation types consistent with black rail use in the Delta" with "vegetation types consistent with black rail in the Delta, as determined by field evaluations conducted by a qualified biologist with experience surveying for black rail." The vegetation types consistent with black rail use in the Delta are not defined in the text.	The change has been made to AMM38 California Black Rail as suggested.
2762	371	[Page] D.3-124 [Line] 33: We [CDFW] suggest initiating sunset surveys 75 minutes before sunset. This time frame was suggested by CDFW experts based on field survey experience.	The change has been made as suggested.
2762	372	[Page] D.3-124 [Line] 35: Please revise to "4.5 National Geodetic Vertical Datum." The "4.5" was left out.	The change has been made as suggested.
2762	373	[Page] D.3-126 [Line] 2-3: Because of the buffer requirements below, this would be clearer if it stated that construction will be restricted to the greatest extent possible during the nesting season where nest sites occur within 0.25 miles of construction activities, unless an already existing suitable buffer between the construction activity and the nest site is identified by a CDFW-approved biologist.	The change has been made as suggested.
2762	374	[Page] D.3-126 [Line] 26-29: The first and second sentences appear to contradict each other. Can nest trees be removed during the breeding season, or not? We [CDFW] suggest prohibiting nest tree removal during the breeding season.	Language was revised to clarify that to the maximum extent practicable trees will be removed during the non-nesting season and if removal must take place during the nesting season it shall be at a time when there are no active nest and CDFW must be notified.
2762	375	[Page] D.3-126 [Line] 32-34: The final plan may include additional measures that are specific to site conditions, but may also modify the measures following this paragraph. That intent was lost when the text was changed. Please also note that CDFW review or approval of the nesting bird monitoring and management plan, or other CDFW approvals required by this AMM [avoidance and minimization measure], will not result in approval for take of white-tailed kite, and any take would be unlawful.	The EIR/EIS does not propose seeking approval for take of white-tailed kite as part of the California WaterFix alternatives (4A, 2D, and 5A).
2762	376	[Page] D.3-127 [Line] 33-34: Change references to [conservation measures] CM7 and CM11 to Environmental Commitments. This comment applies throughout Appendix D.	The reference in the RDEIR/SDEIS in Appendix D to Conservation Measures is correct. Appendix D in the RDEIR/SDEIS presents proposed changes to the 2013 public draft BDCP in response to major public comments and comments from the Delta Science Program independent review panel. If an alternative is selected that includes BDCP, these changes would be carried through to a final HCP/NCCP. Therefore, in the context of Appendix D it is appropriate to refer to the conservation actions as Conservation Measures. For AMM39 in Appendix 3B of the Final EIR/EIS, the language was revised throughout such that it is applicable to all alternatives.
2762	377	[Page] D.3-128 [Line] 48-50:	Alfalfa is not the equivalent of barley and has a different irrigation and harvesting regime. Pandolfino et al. (2011) and Reeves and Smith (2004) found white-tailed kites to be positively associated with alfalfa and used

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		Is alfalfa high-value foraging habitat for white-tailed kite? If so, please provide justification and citations. According to PRBO [Conservation Science], kites foraged more efficiently over fallow bare ground than barley fields.	hay and irrigated pasture, which has a similar irrigation pattern as alfalfa, more than expected. The relatively low and open structure of alfalfa, combined with the fact that it is harvested multiple times per year in this area, may make prey accessible to raptors (Estep 1989).
2762	378	[Page] D-231 [Line] 7: There are other shorebirds that have similar foraging habits as black rail. This sentence should also refer to other shorebirds that feed on aquatic invertebrates in tidal habitats.	Methylmercury exposure to shorebirds is addressed in Impact BIO-183.
2762	379	[Page] D-234 [Line] 11: Change "mercury" to "selenium."	The error will be fixed if an alternative is selected that includes the BDCP. The preferred alternative is now Alternative 4A and no longer includes an HCP.
2762	380	[Page] D-239 [Line] 21-48; [Page] D-240 [Line] 1-25: These bullets are currently listed under the subheading of prohibited uses. Please revise this section to ensure that it is clear which bullet points describe actions that are prohibited on CE [conservation easement] properties and which bullets describe requirements of CEs (for example, wildlife agency monitoring compliance with easement terms).	The referenced text in Appendix D of the RDEIR/SDEIS is material that was revised for the Draft BDCP that may be needed for the EIR/EIS analyses. This appendix was included because the Draft BDCP was not revised and will not be released with the Final EIR/EIS. No revision to this text has been made because the requested revisions do not affect any analysis or substantive content in this Final EIR/EIS.
2763	1	Prior to any decision about construction of tunnels or any other alternative, it is high time for an ecosystem approach to the assessment of the problem and stop this analysis-in-a-vacuum approach to California's water situation. In a nutshell we have a runaway water demand economy and a dearth of water supply action activity, for wont of a better way of putting it. And we have the little Delta smelt serving as the legal kicker while demand for more water continues to rise unabated.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. For more information regarding purpose and need of the proposed project please see Master Response 3. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards.
2763	2	The following is a prime example of misuse of assessment relative to benefits of a practice of water use--efficiency of agricultural irrigation method. When an agricultural producer uses drip irrigation on permaculture tree crops or a hay producer uses a center-pivot sprinkler irrigation system, the public is given the impression that the producer is practicing efficient irrigation for the benefit of the ecosystem as a whole. If a UC extension person or agricultural consultant gets involved and puts in soil water monitoring instruments such that no excess water penetrates below the root zone of the crop, those data are used to confirm futher the benefits to the efficient practice. The problem that arises from such irrigation efficiency is that government agencies	The surface water and groundwater models assume a mixture of crop irrigation practices which a portion of the applied irrigation water contributing to groundwater recharge and/or return flows to the surface water, as described in associated reference documents cited in Appendix 7A and text in Appendix 5A, Section B. The assumptions for groundwater recharge and/or return flows to the surface water are based upon existing observations and future projections completed by DWR based upon other documents such as the agricultural management plans submitted by agricultural water users.

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		naively or with full understanding often cost-share for purchase of components of such irrigation systems without consideration of the extent or the acreage of the practice relative to water supply including groundwater status. The result often is over use of available water supplies to the detriment of downstream fisheries and or water diversions. Here is the kicker of efficiency. Without penetration of irrigation water to the groundwater and with expansion of acreage of use, the end result is exploitation of water and decline over time in water availability especially during drought periods. In smaller alluvial valley situations accretion of relatively cold water to small streams would be low if efficient irrigation practices dominated. In fact, inefficient flood irrigation maximizes accretion of cold water to fisheries in California's hot summer Mediterranean climale type maximizing fishery benefits. As one example relative to this efficiency point discussed above, a drip irrigated orchard that is fully stocked with mature trees transpires about same amount of water out of the leaves of the trees as a traditionally flood irrigated orchard but does nothing for groundwater recharge or stream accretion of cold water.	
2763	3	The BDCP assessment relative to tunnel construction is severely lacking in full assessment of many of the ecosystem aspects of water use demand and water supply. Without understanding both, there is no way to assess the benefits long-term. Overstocked forests that are severely threatened today by wildfire in California, are maximal water spenders thereby reducing watershed output to irrigated agriculture and urban areas. So this is a second example of lack of ecosystem assessment in the current document. There are many other lacking components as well.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 3 (Purpose and Need).
2764	1	I am a native of California who has studied western water issues for 50 years. I am not a lobbyist, farmer, or landowner; however, I am a grandmother who is deeply concerned about what our generation passes on the the succeeding generations. We all know that California has an intensely engineered water infrastructure that is in slow collapse for a variety of reasons. One of the on-going pressures, besides climate change and its shifting patterns of precipitation, including quality, quantity and location, is the over allocations of water resources that is based on unrealistic assessments of the expected precipitation. As a society for over 100 years, we have been engineering our way out of the realities of the climate we live in and its finite innate resources. We have denied these realities as we have pushed the various watersheds to their breaking points. The Delta is an estuary that has been misused past its capacity to adapt and maintain its primary function as a tidal transition ecology between fresh and salt water. It is a complete habitat that serves many functions both for the species that use it and for human agriculture and urban uses. Of course, it is no longer pristine, nor has it been for probably many centuries as various populations have shaped it for their own purposes. However, other populations have not pushed it to the breaking point by the continued demands for unrealistic water exports. Adding the expectations the of BDCP/Water Fix (what a charade!) for "reliability" from a innately variable resource	Water rights issued on rivers in the Central Valley watersheds include a wide range of beneficial uses from hydropower to municipal, industrial, and agricultural water users. However, not all of the water diverted under the water rights is consumptively used. For example, water diverted for hydropower electric generation is fully returned to the water bodies; and a portion of the water diverted from municipal, industrial, and agricultural water uses is returned to the water bodies. In addition, the amount of water diverted is dependent upon water rights priorities and the need to meet environmental flow and quality requirements. Therefore, it is difficult to compare the total volume of water rights licenses to the total amount of water available in the system. For example, water rights issued to DWR and Reclamation are not fully available to provide water under the SWP and CVP water contracts in many years due to the demands of senior water rights holders and regulatory requirements. The Proposed Project was developed to make physical and operational improvements to the SWP system in the Delta, water supplies of the SWP and CVP for users located south of the Delta, and Delta water quality consistent with statutory and contractual obligations of the SWP and CVP, as described in Section 2.3 of Chapter 2, Project Objectives and Purpose and Need, of the EIR/EIS. As described in Section 5.3.1 of Chapter 5, Water Supply, the Proposed Project and action alternatives in the EIR/EIS only would affect SWP and CVP water operations and would not affect water available to other surface water rights holders in the Delta and other parts of California. Action alternatives would increase flexibility for SWP and CVP operations while reducing adverse impacts to aquatic resources and water quality. For example, the action alternatives would result in more water exported in wetter years and less water exported drier water years. For example, in Critical water year types (as shown in Tables C-10-1-14 through C-10-1-25 of Appendix 5A, Section C, CALSIM

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		with many demands placed on it, is nothing shy of environmental insanity. In the drug and alcohol recovery communities there is a phrase that is relevant here: "Doing the same thing over and over and expecting a different result is insanity." In other words, trying to build and "fix" our way into a more reliable water export situation from a resource that is already collapsing from decades of unsustainable water exports is an "insane" use of our natural resources. It is also immoral and probably illegal. Water is a public trust resource.	II and DSM2 Model Results, of the EIR/EIS). The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).
2764	2	Continuing to plant thousands of acres of nut and fruit trees on the west side of the San Joaquin Valley where there are no natural surface water sources is stupid. It is unsustainable and risky to rely on ground water resources and it is the height of hubris and arrogance to ignore the realities of the land and water resources. If corporate agricultural entities choose to "invest" in these unsustainable practices, why do the rest of us in Northern California have to underwrite their investment? Southern California has been addressing their water needs by incorporating multiple conservation and recycling strategies in their areas.	Please refer to Master Response 3 for additional details on the project purpose and need. Also, please see Master Response 34 for additional details on the determination of beneficial use.
2764	3	The Delta is a tidal estuary in which the fresh water flowing in keeps the salt water from overwhelming the lands and penetrating further upstream. I understand the seduction of taking fresh water out near Sacramento instead of further downstream; however, how is the salt water going to be kept out? According to data, it is already 'saltier' further up into the Delta than it was 20-30 years ago. With rising sea levels in years to come, how is the salt-fresh water ratios going to be kept at levels that allow the continued very productive farming of the Delta. Are ever larger, more impenetrable barriers going to be build…what kind of folly is that?	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The EIR/S modeling results for the No Action Alternative indicate that, with or without the project, rising sea levels will bring saline tidal water further into the Delta than occurs at present.
2764	4	Are 1000s of acres of prime farm land in the Delta going to 'sacrificed' for marginal poor quality farm land in Westlands Irrigation District because of large monied interests and their political pressure?	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. Also, please note that the preferred alternative is now Alternative 4A, which does not include a HCP and has significantly less habitat restoration proposed.
2764	5	Economics: Who is really going to pay for this project? Every large western water project for the last 150 years was supposed to be paid for by the users. And every one of those projects has been re-financed multiple times through various federal and state government schemes in which in reality the taxpayers end up paying for it. Even if the "rate-payers" pay for the construction of the tunnels, who are the rate-payers? Yes, some are wealthy agricultural corporations, but many, many more are small farmers and individual households whose water bills will sky-rocket.	For more information regarding funding sources please see Master Response 5.
2764	6	So yes, the Delta has very serious environmental issues that need to be addressed. However, water is a public trust resource and there are many local and regional environmentally sustainable strategies to address these concerns. These strategies have not been given a thorough and transparent review. The main point here is that we, as the human users of our water and land resources, must wake up out our delusional dreams of endless abundance and come to terms with the limits of these resources. A quick review of historical societies who refused to 'wake-up' such as the Mesopotamian cultures and the Southwest Anasazi societies should be a clear reminder of what happens when human uses of an environment outstrip the carrying capacity of the resource. The decade before the Dust Bowl is yet another example of this folly. Who do we think we are that we have the right to	As described in Appendix 3A of the EIR/EIS, a wide range of alternative concepts were considered to be evaluated in the EIR/EIS in accordance with the project objectives and purpose and need statements (see Chapter 2 of the EIR/EIS). It should be noted that the Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in agricultural and municipal/industrial water conservation, recycling, desalination, treatment of contaminated aquifers, or other measures to expand supply and storage (as described in Section 1.C.3 of Appendix 1C, Water Demand Management).

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		destroy these resources through wanton over use and misuse? What about our children, their children and their children's children? Don't they have a right to enjoy and prosper within the limits of the environment, as we have?	
2765	1	I support most of Governor Brown's initiatives, but not this so-called "WaterFix." The tunnels will cost many billions of dollars and do incalculable harm to the ecology and economy of the Delta while adding no additional water to an already over-stretched system.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. Refer to Master Response 3 (Purpose and Need), Master Response 24 (Delta As A Place), and Master Response 5 (Cost).
2765	2	What we Californians desperately need is to capture more water when it falls. With no rational basis for continuing to rely on snowpack, our most pressing need is increased capacity to capture runoff when it flows. In Yolo County where my husband and I live, the head of our local water board estimated in 2006 that over a million acre-feet of water went uncaptured. Our walnut farm is right up against the coastal range, and when it does rain, torrents of water flow down through two sloughs, often flooding the nearby town of Winters and roads leading to it. What we need is more reservoirs up in California's hills to capture this runoff. More reservoirs increase available water that can be transported where it is needed, when it is needed. Catchment ponds and reservoirs also contribute to groundwater recharge. Even the 8 small catchment ponds we have put in at our farm provide some recharge, which is one reason we can still rely on water from our wells. What a waste to spend all that money on tunnels to transport what is already an insufficient amount of water rather than put in more reservoirs to increase the total amount of water available.	Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the BDCP/California WaterFix or FEIR/EIS.
2766	1	I am opposed to the Delta Tunnels because of: -The economic impact on the farming community, the residents who live on the Delta, and the environmental impact on the ecosystem. -When driving I-5 it is apparent that lots of land has been irrigated extensively with scarce water in order to produce crops that are shipped to Asia. -There is no consideration for drought times. -The back door approach to endeavoring to impose the Governor's will upon the people without input from the public. -The lack of a willingness to evaluate alternative solutions. -Placing barges and construction throughout recreational waterways creates a dangerous situation for recreationists and those working on the construction.	The proposed project does incorporate mitigation that would reduce impacts on marine navigation by development and implementation of site-specific construction traffic management plans, including specific measures related to operation of barges and requirements to notify the commercial and leisure boating communities of proposed barge operations in Delta waterways. For more information regarding traffic management please see Mitigation Measure TRANS-1A: Implement Site-Specific Construction Traffic Management Plan in Chapter 19 Transportation of the RDEIR/SDEIS.
2767	1	The health of the Delta is the health of our cities. Please take seriously what happened in New Orleans during Katrina when the Mississippi Delta's integrity as a transition zone had been compromised. We can't presume to fool around with the processes of the natural world without catastrophic consequences! Please!	The project proponents acknowledge your concern over Delta levees and agree that any modifications to the Delta levee system needs to be considered in the context of future risk of catastrophic events. Please see Appendix 6A, Section 6A.6.2.1.3, FEIR/EIS, for a discussion on DWR consistency with the State Plan of Flood Control (SPFC), and Section 6A.6.1.2 for information on project consistency with USACE, CVFPB, and DWR

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			flood standards and regulations.
2768	1	There are so many reasons not to build these canals it befuddles me why supposedly well-educated leaders in our midst continue to obfuscate the facts and plod unthinkingly toward the destruction of the Bay-Delta Estuary. Governor Brown is on the errant side of this one. When I have a difficult decision to ponder I use what I was taught as the Jefferson close, i.e., list all the respective advantages and disadvantages of the situation and the answer will present itself. In this instance the disadvantages far outnumber the advantages and this worn-out concept needs to be put in a grave with a tombstone emblematize with "Here lies a bad idea that never came to fruition." Willfulness in this matter is not an option and the governor needs to move on.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such the proposed project is intended to be environmentally beneficial. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2769	1	There is absolutely nothing about this plan that can possibly improve Delta habitat or contribute to the survival of species within this already environmentally stressed Delta system. It is and has always been solely about increased water delivery to big water districts in the southern portion of the state. More Northern California water and more money for the big ag companies are the goals of the tunnel project. It is unimaginable that this topic can be spun any other way.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 26 (Changes in Delta Exports) and Master Response 34 (Beneficial Use of Water)
2770	1	At this time the Family Water Alliance does not support the tunnel solution as a fix for the Delta. There are too many unanswered questions for our organization to support the project. Our concerns a lack documentation regarding water usage, water storage after the water exits the tunnels and guarantees about water rights and area of origin.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The amount of water that DWR and Reclamation can divert from the new north Delta facilities is set by Federal and State regulating agencies, ESA compliance, and project design. The proposed project and the action alternatives do not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. Projected deliveries of water to senior water rights users, refuges, and SWP and CVP water contractors are presented in Appendix 5A, Section C, of the EIR/EIS for the action alternatives, Existing Conditions, and No Action Alternative. Assumptions about deliveries of water to senior water rights holders by the SWP and CVP are presented in Appendix 5A, Section B. The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation. The Proposed Project is not intended to serve as a state-wide solution to all of California's water problems, and it is not an attempt to address directly the need for continued investment by the State and other public agencies in other programs including implementation of the California Water Action Plan. The California Water Action Plan recognizes that all Californians have a stake in the future of our state's water resources,

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			and that a series of actions are needed to comprehensively address the water issues before us. The five-year agenda spells out a suite of actions in California to improve the reliability and resiliency of water resources and to restore habitat and species — all amid the uncertainty of drought and climate change. The California Water Plan evaluates different combinations of regional and statewide resources management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship.
2771	1	As a California citizen and taxpayer, I am writing to oppose the Delta tunnel.This very expensive (monetarily and environmentally) tunnel will not get us any more water. It is only going to redistribute the water we have to the detriment of the Delta and small farmers whose land will be taken from them. I would like to see the billions of dollars used for desalination plants, helping communities upgrade their recycling plants and upgrading reservoirs if needed. That would give us more water not just take water from the Delta. One can already see the results of not enough water flowing through the rivers and sloughs. The technologies needed to lessen the cost of desalination and recycling are improving every day and that is the only way are going to get more water than what nature provides. Meanwhile, the tunnel will destroy the Delta environment beyond repair, and not just for the fish and birds but for humans as well. The people of California voted down the canal/tunnel idea years ago. It wasn't a good idea then and it isn't a good idea now. And I really don't understand why it wasn't put up for our vote this time. I sincerely hope you will save the Delta and deny approval.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 3 for additional details on the project purpose and need and Master Response 24 for details on the Delta as a place and the impacts of the proposed project on the Delta. Additionally, please refer to Master Response 7 for information on desalination and why it was not included as a project alternative. In 2009 the California legislature passed and the Governor signed into law the Delta Reform Act, one of several bills passed related to water supply reliability, ecosystem health, and the Delta. Among many provisions, the Delta Reform Act imposed certain requirements on Department of Water Resources related to the creation of the Bay Delta Conservation Plan (BDCP) in order to be included in the Delta Plan and eligible for state funding for habitat conservation. These requirements include comprehensive review and analysis, and consultation with the Delta Stewardship Council during the planning process and once the project permits have been approved by California Department of Fish and Wildlife. Within the framework of the existing 2009 Delta Reform Act, the BDCP does not require a public vote to move forward. However, in spring of 2014, DWR announced that it would be pursuing a new preferred alternative, Alternative 4A, also known as California WaterFix. Alternative 4A has been developed in response to public and agency input and embodies a different implementation strategy that would not involve a 50-year HCP/NCCP approved under ESA Section 10 and the NCCPA, but rather would achieve incidental take authorization for a much shorter period (between 11 and 15 years) under ESA Section 7 and California Endangered Species (CESA) Section 20181(b). Prior to construction, the EIR/EIS must be certified and adopted by the implementing agencies, and permits must be obtained but does not require a public vote to move forward.
2772	1	This is to submit my opinion of the proposed Delta Tunnel project. I am opposed whole-hardheartedly against this proposal. I can picture no positive benefits except as a money generator for a few stake holders. To consider thinking about sending large amounts of water to a whole different part of California, not knowing what future water availability conditions will be here in the future is credulous at best. The negatives far far outweigh the seeming benefit of an income. Have it been considered of the potential costs involved in converting Northern California into a desert economy? This is near sighted, single minded, and foolish.	As stated in the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights or any changes in total water rights issued to DWR and Reclamation. The proposed project would not include conveyance of groundwater. As described in Chapter 3, Description of Alternatives, the alternatives considered in the EIR/EIS do not include specific water transfers. The EIR/EIS acknowledges that water transfers would continue in a similar manner as historic transfers and in accordance with State and Federal laws and regulations. Any future water transfers will require separate approvals. The analysis of any potential upstream impacts is not a part of this EIR/EIS and must be covered pursuant to separate laws and regulations once the specific transfer has been proposed.
2773	1	For the last 40 plus years my family and I have traveled bi-monthly between San Francisco and Sonora, CA. During this time we have witnessed floods, droughts, low snow years and that killer year of 2011-12, when we thought the snow would never melt from our front yard in Sonora.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and

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		I am writing to you because I strongly oppose the tunnel plan. I am an educator and I can understand what I read and see. There is no way on earth that building 2 40 foot diameter tunnels and filling them with fresh water from the Sacramento and American rivers to ship south will not cause un-repairable damage to ecosystem of the Delta, the Sacramento River and the American River.	salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 3 (Purpose and Need).
2773	2	We are in the midst of an extremely damaging drought. We are also dealing with climate change and ocean level increases. By grabbing so much fresh water to ship south, you will be allowing further intrusion of salt water into the Delta ecosystem. Millions of people depend on water from the Delta as their main source of drinking water. Our salmon populations are plummeting due to the drought. Your taking additional water will certainly cause the total collapse of our state's salmon population. The San Francisco Chronicle states in their 10/29/15 article titled "Heavy Drought Toll on Salmon" that taking that much water to export to the southland will destroy our "state's $1.4 billion salmon industry." This will also exacerbate the dilemma facing our water agencies over how to allocate water to farmers, water agencies, and environmental causes. We must not send another drop of water south. Southern California is essentially a desert climate. We must think we can control nature to the tune of turning the desert into a tropical paradise. We are long past making that mistake and it is time to face the facts. Northern California has given enough, more than enough, of a share of our water to the south. I am tired of conserving and watching my garden die just so big agri can plant in areas where nut trees have no business being planted only to be grown for export. If you persist in allowing these tunnels you will be condoning the destruction and death of northern California as we know it only to provide "welfare for the rich!" It is time for us all to say No! Not one more drop!	No issues related to the adequacy of the environmental impact analysis in the EIR/EIS were raised. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Potential changes to the aquatic and terrestrial resources are presented in Chapters 11 and 12 of the EIR/EIS. For more information regarding purpose and need of the proposed project please see Master Response 3. The SWP and CVP operations under the action alternatives would only deliver water under existing water rights issued by the State Water Resources Control Board to DWR and Reclamation for use by the SWP and CVP with consideration for senior water rights and Area of Origin laws and requirements. The hydrologic analysis in the EIR/EIS considered changes over long-term conditions which includes high flow events and drought periods, conditions similar to the 1976-1977 and 1987-1992 droughts, as described in Appendix 5A, Modeling Technical Appendix.
2774	1	The proposed Delta Tunnel Plan is nothing but a water grab from Northern California. It will takes decades to build, will be vastly over budget and it would imperil fish and the economy of the Delta. This is nothing more than Brown hoping to add to his legacy regardless of the public outcry or desire. We should be building more water storage, as this project does nothing to provide more water for the state. We are now paying for the failure of this state's legislators to recognize their responsibilities to assure that California has enough water to sustain growth that is necessary to maintain a healthy economy. My family has farmed in the Delta for 160 years and that legacy will cease to exist if this plan goes forward.	The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The Lead Agencies discuss community character in Chapter 16 of the EIR/EIS and RDEIR/SDEIS Appendix A (Socioeconomics) identifies the unique features of the Delta and describes the potential effects on Delta communities. Please see chapter 15 for a discussion on impacts to recreation. Impacts to agriculture are identified and discussed in Chapter 14; project proponents have proposed measures that would support and protect agricultural production in the Delta by securing agricultural easements and/or by seeking opportunities to protect and enhance agriculture with a focus on maintaining economic activity on agricultural lands. Please see Master Response 18 for more information on agricultural mitigation.
2775	1	Just a last minute comment from a long time Delta area resident and voter! What are you thinking? How on earth can you put forward the proposition that the long term good of California can be served by killing the ecosystem of the northern half of the state?! For what--the short term profits of a few hundred (already wealthy) growers in the Central Valley, whose crops are mostly exported anyway!?	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Refer to Master Response 3 (Purpose and Need) and Master Response 34 (Beneficial Use of Water).

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		Common sense, here, people!	
2776	1	You have heard all the arguments. You know that the proposed Delta Tunnels would be an environmental disaster. These tunnels are an obscene idea, especially during a drought. Wild salmon and various other wild fish species are facing extinction; these tunnels would be the final blow. We need our fresh water as developed by Creation. Do not upset the natural balance of our God-given ecosystems with this proposed boondoggle.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 3 (Purpose and Need).
2777	1	As an Oakland resident who values a healthy San Francisco Estuary, I strongly oppose the proposed Twin Tunnels project. We all know that there are viable, sustainable options for securing severely limited water resources that are more cost-effective than the Tunnels and do not harm the San Francisco Estuary. Please--do not construct the Twin Tunnels.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 3 for additional details on the project purpose and need.
2778	1	Water Supply Reliability. The Final EIR/EIS should provide additional information on water supply yield during each type of water year (normal, dry and wet) so that the reliability benefits can be better understood and all storage assets in southern California optimized to enhance reliability during the inevitable dry periods.	Water deliveries to the SWP and CVP water users is dependent upon available water supplies under the water rights held by DWR and Reclamation, respectively; water year types; and flow and water quality characteristics in the Delta. In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. Under the range of alternatives considered in the EIR/S full contract amounts are not delivered in the majority of times to the SWP and CVP water contractors, as presented in Appendix 5A, Section C, CALSIM II and DSM2 Model Results, of the EIR/EIS. Over the long-term, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. 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.
2778	2	Endangered Species Act Permitting. The change in regulatory approach for ESA compliance from the BDCP's Habitat Conservation Plan/Natural Community Conservation Plan to a Section 7 consultation is a significant change to achieve more regulatory certainty. We strongly urge the lead agencies and the permitting agencies and the permitting agencies to incorporate adaptive management and participative governance in operational decisions into the Final EIR/EIS and supporting agreements to ensure consistent delivery of SWP supplies.	The collaborative science and adaptive management and monitoring program has been updated for this Final EIR/EIS. Please refer to the Executive Summary and Chapter 3, Description of Alternatives and Master Response 33.
2778	3	Habitat Mitigation. The amount of mitigation acreage under the modified Preferred Alternative has significantly increased. There is no clear description of how the amount of acreage was determined or why it has become the responsibility of the water supply facilities. The Final EIR/EIS should provide a detailed explanation and nexus between the proposed mitigation acreage for Alternative 4A and why water suppliers and	The commenter suggests that the amount of habitat and mitigation related to construction of the water conveyance facilities under the modified Preferred Alternative 4A has substantially increased from the amount identified under the BDCP. The analysis for the loss of habitat and/or direct mortality of a species considers the collective loss of habitat from water conveyance construction and the Conservation Measures/Environmental Commitments. Alternatives 4 and 4A utilize the same water conveyance construction footprint but differ in that they have different levels of restoration with Alternative 4 having

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		ultimately water ratepayers will shoulder those costs.	greater impacts to biological resources from restoration actions when compared to Alternative 4A (note some restoration actions to benefit one species or natural community result in effects on other species or land cover types). The proposed restoration under Alternative 4A is less than that proposed under Alternative 4. Alternative 4 would result in the protection of 69,275 acres and restoration 83,839 acres (see Table 12-ES-2 in the EIR/EIS) and Alternative 4A would result in the protection of up to 13,340 acres and restoration of up to 2,496 acres. The analysis in Chapter 12 of the EIR/EIS does not separately discuss the compensation acreages for water conveyance impacts and restoration impacts. Language to explain how the proposed protection and restoration acreages were generated has been added to Chapter 3 of the EIR/EIS in Section 3.3.2.2 Non-HCP Alternative Environmental Commitments. In summary, this new language states that the acreages for the Environmental Commitments under the non-HCP alternatives were developed by taking into consideration the analysis conducted in Appendix 12D, Feasibility Assessment of Conservation Measures Offsetting Water Conveyance Facilities Construction Impacts on Terrestrial Biological Resources for the BDCP alternatives, which used typical mitigation ratios to determine the sufficiency of the BDCP conservation strategy as CEQA and NEPA mitigation (i.e., whether the BDCP conservation strategy includes sufficient land acquisition and restoration to adequately mitigate the impacts of CM1 for purposes of CEQA and NEPA). The first step involved applying these mitigation ratios to the water conveyance facility impacts on natural communities to obtain the restoration and protection acreages necessary to offset these impacts. Once these initial natural community restoration and protection acreages were obtained, they were then compared to the mitigation requirements for species addressed in the EIR/EIS that use these natural communities as habitat. Several of the species analyzed in the EIR/EIS utilize the same general natural communities but may only use specific subsets of these natural communities or are geographically restricted to certain portions of the study area where these natural communities occur. Therefore, the total acreages of proposed natural community restoration and protection increased to account for species needs. Where restoration is anticipated to result in additional impacts on natural communities and species habitats, the restoration and protection acreages were increased further. Through an iterative process, final acreages for natural community protection and restoration were arrived at when it was determined by project biologists that proposed restoration and protection was sufficient to offset the loss or conversion of natural communities and species habitats from water conveyance construction and proposed restoration activities.
2779	1	As a Solano County farmer, fourth generation San Francisco Bay Counties resident and one whose careers have centered on agriculture and agricultural research, I have been following Bay Delta Conservation Plan (BDCP) developments and issues since 2007 with increasing concern. Sadly, the overriding factor in BDCP decisions seems to be greed of a few at the expense of the well-being of the greater population and ecosystem.	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2779	2	Having grown up enjoying the San Francisco Bay, Delta estuary and connected waterways all the way to Sierras, I have born witness to the benefits, beauty and wonder of a healthy, bountiful ecological system that has provided clean air, fresh water and abundant plant and animal life. Beyond its intrinsic value, however, this wondrous watershed has provided the ideal conditions in which agriculture can thrive and produce abundant food for those within and beyond its boundaries. That we, humankind, would even think of doing anything that could further harm or detract from this amazingly effective, natural system is unthinkable and incredulous.	The California WaterFix project is being proposed to address the conflict between the ecological needs of a range of at-risk Delta species and natural communities, while providing for more reliable water supplies for people, communities, agriculture, and industry. State constitutional restrictions require the reasonable and beneficial use of water and state law requires that water supplied from the Delta be put to beneficial uses. The Lead Agencies do not have the authority to designate what water deliveries are used for. Please refer to Master Response 34 regarding the potential uses of water delivered via proposed conveyance facilities.
2779	3	As a Solano County farmer for over 45 years, current vice-chair of the Solano County Advisory Committee, former scientific researcher at UC Davis, as well as a forestland owner, I have closely observed and evaluated potential effects, intended and unintended, of the BDCP for several years from the perspective of its effect on our	Regarding electrical conductivity (EC), the assessment focused on changes in EC at Bay-Delta Water Quality Control Plan (WQCP) compliance locations, which were established by the State Water Resources Control Board for the protection of agricultural beneficial uses of Delta waters. The potential for water conveyance operations to affect salinity conditions in the Delta (including Suisun Marsh) with implementation of each

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		ability to produce crops and feed ourselves. It alarms me that somehow agriculture in the northern Bay Counties of Solano, Yolo and Sacramento, seems to be left out of the discussion, though they are among the most productive areas for high value crops and provide a wide array of "ecosystem services" as well. Paramount in concern is the degree to which water salinity levels would move upstream in the Delta as a result of BDCP's proposed water conveyance system. Such salinity levels, would have devastating effects on existing crops in and near the Delta waterways, and we do not know the extent to which such salinity increases would intrude precious regional aquifers. My own operation would be immediately affected since I source feeder cattle from a rancher east of Dixon, whose pastures would die. Many other farmers would be more severely affected.	action alternative, is assessed in detail in Chapter 8, Water Quality, of the EIR/S for the salinity-related parameters bromide (Impact WQ-5), chloride (Impact WQ-7), and electrical conductivity (Impact WQ-11). Where significant impacts to water quality would occur due to the alternative, mitigation to lessen those impacts is provided. Mitigation Measure WQ-11: Avoid or Minimize Reduced Water Quality Conditions would be expected to reduce increases in EC resulting from implementing Alternative 4A (the preferred alternative). The goal of specific actions is to reduce/avoid additional exceedances of Delta EC objectives and reduce long-term average concentration increases to levels that would not adversely affect beneficial uses within the Delta.
2779	4	I think of my children and grandchildren, i.e. those that follow us. That we would endanger our rich agricultural abundance, leaving following generations to suffer a scarcity of locally produced foods, pains me no end. That our populace would have to depend on products grown "off shore" under conditions we do not control at costs beyond our reach seems unthinkable. We have the proverbial "Golden Goose", why would we even think of risking it?	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2779	5	The BDCP is not about sharing and abundance of water; rather it is about sending a precious, needed resource from a sound, productive agricultural region to an area where poorly thought agri-business choices and water gluttonous development have created a greed for water at a cost to others. Neither our Delta ecosystem, nor our regional agriculture can afford this ill thought Bay Delta Conservation Plan. I strongly urge the Plan be scrapped.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2780	1	Around the world, people are working hard to restore and reclaim rivers and estuaries. In California, the San Francisco Bay- Delta, the largest estuary on the west coast of the Americas, is being decimated, sacrificed to a cause that benefits private corporate interests at the expense of the people and economy of the State of California. There is no guarantee that more water will not be taken than currently promised once the tunnels are built. The perpetrators of this financially and environmentally corrupt plan cannot be trusted to do anything that would get in the way of their lofty plans to turn water into a profit center for their personal use.	This comment letter is in part a form letter that has been submitted by many commenters. To locate the response to the form letter portion of the comment, please refer to the index of commenters in Chapter 4 of Volume II of the Final EIR/EIS, and cross reference the Form Master letter number shown there with the index of Form Masters also provided in Chapter 4 of Volume II of the Final EIR/EIS. The text below responds to the specific substantive portions of the comment letter that were submitted by the commenter. In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The amount of water that DWR and Reclamation can divert from the new north Delta facilities is set by Federal regulating agencies, ESA compliance and project design, and not by the

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			water contractors. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply of the EIR/EIS.
2780	2	The "coequal goals" of providing a more reliable water supply for California AND protecting and restoring the cultural, recreational, natural resource, and agricultural values of the Delta, cannot be upheld if the Delta Tunnels come to pass. This is happening without consideration of meaningful input from the counties who will be most affected.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31.
2780	3	This plan is taking us backwards, ignoring the ample evidence that economically it is unsupportable. Environmentally it is a vehicle that will degrade the entire Bay-Delta estuary in all the many ways that have been documented but ignored. This is government of the few, for the few. The tunnel project makes no sense and will become a major ecological, human and financial disaster. I respectfully request that you consider all points of view and examine the overwhelming evidence that has been presented by experts that concludes that the tunnels are the least effective solution to a very serious human problem.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2781	1	I've fished the Delta since I was five in 1945. My dad took me catfishing and striper fishing in a rented boat for years.The years have gone by fast and the Delta has changed a lot since the pumps were put in.The saltwater goes way up river now and will go up river more if the dumb tunnels are put in! I no longer fish the Delta since I bought a 24 foot boat to fish salmon 25 years ago. Now the pumps are killing the salmon along with other fish and I am afraid my kids and grand kids will not be able to enjoy fishing much longer. I still have my 16 foot boat to fish the lakes but if the dumb tunnels are put in it will make easier to drain the lakes too! Please stop the Delta Tunnels! Thanks for your time.	Please refer to Master Response 17 regarding striped bass and Master Response 3 regarding purpose and need. Additionally, fishing is already considered in Chapter 15, Recreation. With implementation of mitigation measures, Impact REC-4: "Result in long-term reduction of recreational fishing opportunities as a result of constructing the proposed water conveyance facilities" would be less than significant. Impact REC-5: "Result in long-term reduction of recreational fishing opportunities as a result of the operation of the proposed water conveyance facilities" would also be less than significant with no mitigation required. Please refer to Master Response 14 regarding salinity. The preferred alternative, 4A, would be anticipated to result in less than significant effects on fish and water quality related to salinity, which would result in less than significant effects on fishing from a recreation perspective.
2782	1	I am writing in opposition to the State's plan to build the 2 40 foot diameter tunnels to take water from the Sacramento River and the American River from north of the Delta. There is no way that taking that huge amount of water our of the delta will "save" the Delta. The removal of that huge volume of water will allow a much stronger intrusion of salt water cause the Delta ecosystem to crash. It will result in the death and perhaps extinction of the $1.4 billion salmon industry. The removal of that volume of fresh water may very well cause the crash of the San Francisco Bay ecosystem. Also, as climate change continues, and our average yearly temperatures increase there will be less and less snow falling on our mountains. Already our glaciers are melting.	All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water

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		Without our winter snow pack any rain we get will fall and run off. By taking such a huge volume of water out of our northern rivers, we run the risk of then drying up in the summer months. These tunnels are a huge mistake. We risk destroying life in northern California as we now know it. All for providing cheap water for big Agri, and farms growing high water crops like walnuts and almonds for export. We need to concentrate on growing food to feed American families, crops that will be able to survive future droughts and still provide the nutritious meals our families need.	quality standards. The range of alternatives in the EIR/EIS includes alternatives which result in reductions in SWP and CVP water deliveries south of the Delta as compared to the Existing Conditions and the No Action Alternative. The No Action Alternative and Alternatives 4H1, 4H2, 4H3, 4H4; 5; 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under Existing Conditions (shown in Tables 5-5 and 5-8). Similarly, Alternatives 6A, 6B, 6C; 7; 8; and 9 would result in less SWP and CVP water deliveries south of the Delta than under the No Action Alternative (shown in Tables 5-6 and 5-9). However, SWP and CVP water deliveries would continue under all alternatives. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. The issue of crops and water use is beyond the scope of the Proposed Project. For more information please refer to the updated draft 2013 California Water Plan's strategy for agricultural water use efficiency, which describes the use and application of scientific processes to control agricultural water delivery and use. Also, refer to Master Response 6 and Appendix 1C for further information on demand management measures, including increasing agricultural water use efficiency and conservation. 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).
2783	1	I am writing in opposition to the Delta Tunnel project. The negative affects on the eco-system in the Delta are both economic [like job loss and farming] and environmental [like drawing salty water into the Delta and up the Sacramento River and crane habitat]. This project simply moves water from the northern part of the state to the southern part. Building tunnels and dams will not produce more water. We are capable of better solutions. Please do not make the Delta Tunnel project the Brown legacy.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2784	1	The tunnels result in no new water. Our rates here will go up but we won't be getting any more water.	In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. However, the proposed project would decrease total

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			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. The water would be stored at locations south of the Delta, including in Santa Clara County, during the high flow periods to allow reductions in deliveries to SWP and CVP water users in drier periods. As shown in Appendix 5A, Section C, SWP and CVP water deliveries in the San Francisco Bay Area region (including Santa Clara County) would be similar or increased as compared to Existing Conditions and the No Action Alternative. The construction of the water delivery facilities is estimated to cost $14.9 billion, an amount that would be paid for by the state and federal water contractors who rely on Delta exports. The range of costs for water vary widely among contractors south of the Delta. Costs depend on the source of water, transport facilities, energy requirements, among other factors. For the agricultural customers of the CVP, prices range from $100 per acre-foot to more than $400 per acre-foot. The Metropolitan Water District of Southern California, which buys water from the SWP, estimates that the cost of the proposed project would translate into about $5.00 extra per household, per month in its service area. The final cost of water from the new conveyance facilities would be determined by numerous factors. A number of these significant factors, such as the project yield and allocation of costs, have yet to be determined. Please see Master Response 5 for information regarding funding of the proposed project.
2784	2	Construction & administration costs have a way of increasing during such a large-scale project, sometimes astronomically. (Related concern: Who really benefits from this project?)	Please refer to Master Response 5 for additional details on the costs of project implementation.
2784	3	A thorough program of conservation, recycling, and especially storage would be more efficient and more realistic, given the possibility (probability?) of more droughts.	Please see Master Response 37 regarding why an alternative focused on creating additional storage, either in the Delta or elsewhere, was not included in the BDCP/California WaterFix or FEIR/EIS. 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 California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. Although conservation components, water storage, and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. Appendix 1C, Demand Management Measures, in the EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including storm water drainage. While these elements are not proposed as part of the BDCP or the California WaterFix, the Lead Agencies recognize that they are important tools in managing California's water resources.
2784	4	According to state and federal fishery agencies, we're already taking more fresh water from the Delta than is sustainable. I'd like to see a plan that takes increased Bay Area population into account while preserving enough water for the fisheries. Incidentally we got rid of our lawn 20 years ago, no rebates back then either.	The proposed project considers water demands for SWP and CVP water users, including those located in Santa Clara County, based upon the current urban water management plan projections which includes projections to achieve 20 percent reduction in California's urban water demands by 2020 as compared to 2000. The Proposed Project was developed to improve Delta habitat and SWP/CVP water supply reliability. As described in Chapter 5, Water Supply, the action alternatives in the EIR/EIS only would affect SWP and CVP water operations and would not affect water available to other surface water rights holders in the Delta and other parts of California. Action alternatives would increase flexibility for SWP and CVP operations while reducing adverse impacts to aquatic resources in accordance with 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. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological

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			opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply, of the EIR/EIS.
2784	5	Why not use at least some of the allocated money to fix the levees, and invest any remaining in conservation, recycling, storage? I understand the levees desperately need repairs.	Please see Chapter 2, FEIR/EIS, for the BDCP/CWF purpose and need, and Appendix 6A Sections 6A.2 and 6A.3 for discussion on existing levee improvement programs and funding mechanisms, which would not be affected by the BDCP/CWF. Levees are an important public safety resource and the proposed project would not change levee policy or replace ongoing programs and grant projects aimed at facilitating and supporting levee improvements in or outside the Delta. It recognized that levee maintenance and safety in the Delta is an important issue for the residents of the Delta and for statewide interests. Also, see Appendix 1C, Demand Management Measures, FEIR/EIS, for an overview of water use efficiency and conservation programs being implemented to reduce water demand throughout the state. Demand Management is not a BDCP/CWF Alternative as it does not meet the Purpose and Need for the BDCP/CWF to improve habitat for at risk fish species and increase water supply reliability.
2785	1	The numbers do not work. Even desalination is far cheaper.	For more information regarding cost of the proposed project please see Master Response 5. For more information regarding desalination please see Master Response 7.
2785	2	This is an environmental disaster in the making, despite all the "experts" testimony.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 3 (Purpose and Need).
2786	1	Any big project done to the environment is risky. However, we now have adequate research, science and technology to allow us to prevent the worst "unintended consequences" to the environment. And yet, it seems we do not have the will to do so. Installing tunnels to divert away even more water from the Delta will be disastrous in many ways, most especially to any wildlife that currently rely on the delta for fresh water (migratory birds, fish, terrestrial creatures). As you know, the state has already spent millions on a dam to keep saltwater out of the delta. If there were adequate fresh water this wouldn't be necessary. The proposed tunnels will make this problem worse. They will also endanger water supplies.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The EIR/S modeling results for the No Action Alternative indicate that, with or without the project, rising sea levels will bring saline tidal water further into the Delta than occurs at present. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights that were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. DWR and Reclamation operate with water rights issued by the State Water Resources Control Board that are junior in priority to many senior water rights holders in the Delta watershed. Under the action alternatives, senior water rights holders would continue to receive the same amount of water as under the No Action Alternative. Conveyance facilities under the action alternatives could only deliver the amount of water diverted under the existing SWP and CVP water rights and in accordance with the existing and future related regulatory requirements based upon river water levels and flow, water available in the system, the presence of threatened and endangered fish species, and water quality standards. As a plan prepared to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2786	2	Equally wrong-headed is the potential for a joint powers of authority of water contractors to fund and operate the project separate from the state. What, California is going to give over the health of the Bay Delta to a bunch of contractors? I am incredulous at the naivete that suggestion shows (or, perhaps the cynicism).	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.

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2786	3	You are a government agency, and the Governor is your boss. However, if you do not push back enough on this project to stop it, we (and our descendants) will look back on this as the death knell to the delta. Please do your most important job as stewards of the environment and prevent the Bay Delta Tunnels project.	Please note that the project has been initiated and carried forward by two Governors acting on a mandate from the voters of the State as a whole. Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. The premise of the California WaterFix is that it will provide environmental benefits while stabilizing water supplies for a large population of California residents, consistent with statutory policy as found in the Delta Reform Act of 2009 (see, e.g., California Public Resources Code, §§ 85001(c), 85002, 85004(a), 85020.) Refer to Master Response 31 (Compliance with the Delta Reform Act). The project would help to address the resilience and adaptability of the Delta to climate change through water delivery facilities combined with a range of operational In addition to the added water management flexibility created by new water diversions and operational scenarios, the project would improve habitat, increase food supplies and reduce the effects of other stressors on the Delta ecosystem. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project.
2787	1	I don't think there has been an adequate environmental study of the impact that the proposed delta tunnels will have on the San Francisco Bay Delta estuary. This is one of the largest estuaries along the western coast of North America. It's mix of fresh and salt water supports many species of fish, seabirds, and plants, all of which are already under pressure by climate change. Diverting the Sacramento River from the delta will be immensely destructive on this unique environment and resource. Also, I read about the emergency in Fort Bragg this summer when sea water encroached into their water supply. Imagine this happening in this heavily populated area, which is what will happen if half of the Sacramento River water is diverted to other areas of the state for water-thirsty crops. I don't think the Delta tunnels are what the legislature had in mind. This legislation was sold to Californians as a way to improve storm water capture, recharge the ground water system, and water-recycling projects. As a citizen who voted against the peripheral canal in the 1970s, I feel that powerful economic interests with the aid of the governor have done an end run around the citizenry to avoid a vote on building these giant tunnels, as well as a campaign that would provide a full discussion on the problems involved in this project.	The Final EIR/EIS presents potential changes to environmental resources of the implementation of the proposed project and other action alternatives as compared to the No Action Alternative and Existing Conditions. In accordance with the Project Objectives and Purpose and Need (see Chapter 2 of the EIR/S), all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights nor reduction in total water rights issued to DWR and Reclamation. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board Water Right Decision 1641 (D-1641), subject to adjustments made pursuant to the project and the adaptive management process, as described in Chapter 5, Water Supply of the EIR/EIS. To protect aquatic resources, the proposed project would decrease total exports of SWP and CVP water as compared to Existing Conditions and No Action Alternative in the summer and early fall months; and increase exports in the wet winter months when the river flows are high. 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. As described in Chapter 8, Water Quality, salinity would increase in the Delta with or without the proposed project due to climate change and sea level rise. The water quality assessment in Chapter 8 of the DEIR/EIS and Section 4.2.7 of the RDEIR/SDEIS discusses instances in which there are water quality benefits of the project or alternatives.
2788	1	The Delta tunnel plan is an environmental disaster waiting to happen. Although I am sure that the federal water limits and regulations will be followed, we as Californians have always gone above and beyond the often lax statutes put forth at a national level. This plan will create weaknesses in our irreplaceable Delta, and all in the service of helping a region whose water needs are insatiable and simultaneously wasteful. This plan is analogous to the theft of water from the Owens Valley, and I am sure that in time our Central Valley and Delta regions will experience a similar environmental catastrophe, especially as climate shifts cause a less reliable snow pack. If Southern California is really that desperate for water, they should make meaningful and	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The project proposes to stabilize water supplies, and exports could only increase under certain circumstances. Water deliveries from the federal and state water projects under a fully-implemented Alternative 4A are projected to be about the same as the average annual amount diverted in the last 20 years. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. See Master Response 34 (Beneficial Use of Water), Master Response 35 (Southern California Water Supply) and Master Response 3 (Purpose and Need).

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		substantial infrastructure upgrades to allow the capture of seasonal rainfall, which is currently shunted directly into the ocean. Until such time as those communities have done due diligence, I believe that it is foolhardy and negligent to enact a plan to divert water from Northern California, and as such I oppose the building of the tunnels.	
2789	1	What's next? Are we going to pull the moon closer to the earth to better manage the tides? Surely, we can find a better solution than digging two giant tunnels (straws) from one end of California to the other. Let's focus on finding a better ecological solution (conservation, recycling, desalination, etc.) and stop wasting anymore time and money on "Jerry's Folly" -- enough already.	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 4 for additional details on the selection of alternatives.
2790	1	Do not build the tunnels. The Delta is in ecological decline, and needs help to be restored. California needs water not tunnels. Water conservation and storage Yes. $15 Billion water transport tunnels NO.	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, as such it is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. See Master Response 3 (Purpose and Need) and for information regarding why water storage was not included in the proposed project, refer to Master Response 37 (Water Storage) and Appendix 1B, Water Storage, EIR/EIS.
2791	1	Southern California has had way more rain than Sacramento has. Why can't we get water from all of their flash floods? Why doesn't Los Angeles collect all of its run-off and send it to us? Our lawns are dry, how about the southland's lawns and pools? We are now only "allowed" to water one time per week. Do not sacrifice Delta wildlife for Los Angeles "nightlife". Their lifestyle is wasteful!	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2792	1	Premise is disconcerting with endless costly refixits. If a destructive tunnel funnel, it would usurp fresh water along natural Delta River. It would not be beneficial use to Delta River locale, neither Northern California nor Southern California. However, 26 testing points of desalination with over 9000-mile ocean border means business job creation.	Please see Master Response 34 (Beneficial Use), Master Response 3 (Purpose and Need), Master Response and 24 (Delta as a Place).
2792	2	Desalination: California citizens and the Governor will find prosperous legacy in cost-effective desalination. It was invented 1970 at University of California, Berkeley, one of the Governor's alma maters. Otherwise, dealing with salt will be a factor, to resolve for mutual benefit in Northern California and Southern California, with all affected by the drought. It has been used in Israel, Australia and over 100 nations. If Los Angeles Metro Water District [of] Southern California has funds to purchase four islands in Northern California, then they have funds to invest in cost-effective desalination! (There's research in wave energy, gravity (like to Bakersfield basin), etc.	Please see Master Response 4 for discussion of the scope of the proposed project and alternatives (such as desalination) that were not carried forward for analysis in this document due to the fact that required actions beyond the scope of the proposed project. However, nothing in the proposed project would prevent other entities from pursuing innovative approaches to desalination or other water supply solutions. As described in Appendix 3A, Section 3A.7, Results of Initial Screening of Conveyance Alternatives, EIR/EIS (2013), desalination was included as part of Alternative B7. Issues related to desalination include land use impacts, costs, and substantial energy use requirements. Advances in technology have improved feasibility of desalination and as a statewide water use planning component; it will be evaluated by water agencies on a local/regional level. Desalination, the process of removing salt and other minerals from seawater to make it suitable for drinking or irrigation, is being implemented in several California communities. However, it has not proven viable to

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			secure adequate water supplies to meet California's needs due to high costs and energy demands. Today, desalination creates an estimated 84,000 acre-feet of potable water a year in the state, mostly through treatment of brackish groundwater, which is less salty and cheaper to treat than sea water. In comparison, the proposed project would secure an estimated 4.7 to 5.2 million acre-feet of water to supply more than 25 million people and 3 million acres of farmland. Although the proposed project would not increase the overall volume of Delta water exported, it would make the deliveries more predictable and reliable, while restoring an ecosystem in steep decline. Local water agencies will need to invest in additional strategies and technologies, including desalination, to meet future water demand. The proposed project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Please see Master Response 7 regarding desalination. Please see Master Response 35 regarding water use and conservation in Southern California.
2792	3	Impact: The Executive Summary refers to the controversies, prehistoric matters (like sturgeon/salmon, unique six-foot winged cranes, etc.), long list of impact effects, whether pragmatic or not, etc. USACE [U.S. Army Corps of Engineers] has maps of 100 years and can restore effective dredging from Antioch Bay Bridge to Sacramento. This has been a proven way for fresh water. CVFPB [Central Valley Flood Prevention Board] had a report on July 10th in Clarksburg (near Sacramento) on 80% non-compliance in Levee Maintenance. That percentage is inexcusable and can be remedied, as done for generations before.	The Proposed Project was developed to improve Delta habitat and SWP/CVP water supply reliability especially related to the ability to divert water during months when the existing south Delta intakes cannot be fully operated due to the presence of listed fish species or the need to reduce diversions to protect water quality and aquatic resources. As described in Chapter 5, Water Supply, the action alternatives in the EIR/EIS only would affect SWP and CVP water operations and would not affect water available to other surface water rights holders in the Delta and other parts of California. Action alternatives would increase flexibility for SWP and CVP operations while reducing adverse impacts to aquatic resources. For example, the action alternatives would result in more water exported in wetter years and less water exported drier water years, as described in Chapter 5. The Proposed Project also would provide additional water supply reliability in the case of levee failures in the Delta that could require the SWP and CVP to reduce Delta exports in order to avoid further degradation to water quality or aquatic resources after the levee failure.
2792	4	Water grab? The project plan suggests water, land and air grab. Who pays and who profits? It is not the citizens of California, and they voted against any unnatural peripheral canals in 1982. Why do comments refer to ICFI? Is that Virginia-based? Like the USDA poster, we need natural water recycle, reservoirs (with restoration to ground water), etc. Californians have various alternatives for business job growth, agricultural preserves, reforestation (for snowfall), recreational and historical tourism, and so forth. Governor's Mansion: Here is restoration with models of water technology. Californians are proactive, not destructive of local environments, economies, etc.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. For more information regarding the differences between the proposed project and the peripheral canals please see Master Response 36.
2793	1	The tunnels are a bad idea. It makes no sense to destroy one natural ecosystem to support an unnatural one. California's Central Valley is a desert on artificial life support with Northern California water. That very water is instrumental to keeping the largest freshwater estuary alive and healthy. Mess it up and the huge ramifications will cause damage far beyond the Delta. Instead, fund measures that will change the valley and Southern California culture of wasteful water habits. Explore and create efficient water	Please refer to Master Response 6 for additional details on demand management. Also, please see Master Response 34 for additional details on the determination of beneficial use and Master Response 4 for additional details on the project purpose and need.

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		use techniques. Cover the current aqueduct with solar panels to reduce water loss from evaporation. Mount an all-out campaign to get all of California to rethink water as a limited resource that we can't take for granted --and abuse -- any longer. Your legacy will be inspirational, Jerry, if you are creative. Don't use an old idea that will drag you under. Not enough has been done to curtail wasteful water usage, particularly in Southern California. Cultures can change. An emphasis on water conservation and efficiency is part of the answer. The tunnels are a worn out band-aid on a severed artery.	
2794	1	I am opposed to the "California WaterFix".	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2795	1	The Governor's WaterFix has dropped its original environmental mitigation requirements and now is pushing ahead to start construction early next year with no consumer or legislative approval needed. Only approval by federal authorities is required. Caught in the balance is the ecological health of the San Francisco Bay and wetlands, fish species, thousands of threatened sandhill cranes and other sensitive species that travel the Pacific Flyway. Residents, all those who derive their work from the waters, tourists, and future generations of Californians will not know the pristine and vibrant ecosystem we enjoy today for commerce, recreation, and fish and wildlife habitat.	Although Alternatives 4A, 2D, and 5A include only those habitat restoration measures needed to provide mitigation for specific regulatory compliance purposes, habitat restoration is still recognized as a critical component of the state's long-term plans for the Delta. Such larger endeavors, however, will likely be implemented over time under actions separate and apart from these alternatives. The primary parallel habitat restoration program is called California EcoRestore (EcoRestore), which will be overseen by the California Resources Agency and implemented under the California Water Action Plan. Under EcoRestore, the state will pursue restoration of more than 30,000 acres of fish and wildlife habitat by 2020. These habitat restoration actions will be implemented faster and more reliably by separating them from the water conveyance facility implementation.
2795	2	The Delta Tunnels Project, formerly known as the Bay Delta Conservation Project (BDCP), included $8 billion for construction, mitigation and habitat restoration, in addition to $17 billion for tunnel construction. The stated purpose of including mitigation was to comply with legal requirements to meet co-equal goals of 1) water supply reliability and 2) ecosystem restoration. In Fall 2014 the National Academy of Sciences and the EPA, US Fish and Wildlife Service, and several other agencies disputed most of the plan's claims of environmental benefits and the EPA would not grant the project the 50-year protection from environmental lawsuits it sought. In response, the Brown Administration did two things: a. Reduced funding for mitigation and restoration from $8 billion to $300 million. b. Split the project in two i. Delta Water Tunnels construction project called the California WaterFix. ii. The mitigation and restoration project dubbed California EcoRestore. C. This separated the construction project from any restoration work and abandoned the pretense of meeting co-equal goals of supplying water to farms and municipalities, and protecting the water quality and natural habitats.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. For more information regarding the proposed project's compliance with the Delta Reform Act please see Master Response 31. For more information regarding piecemealing and segmentation please see Master Response 8.
2795	3	Governor Brown has altered his original proposal that provided for the protection of water and the preservation of habitat. This protection was dropped in the fall of 2014 and now the project has no requirement to preserve the ecosystem already at the breaking point. It also omitted any reference to an impact to San Francisco Bay, a tactic that the National Academy of Sciences cited as one of the BDCPs critical scientific gaps. Additionally, Governor Brown has asked President Obama to tell the federal agencies'	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

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		officers to give the WaterFix tunnel project a pass on the adherence to laws concerning the endangered species and water quality.	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 RDEIR/SDEIS also included analysis of impacts to San Francisco Bay in Chapter 8, Water Quality, and Chapter 11, Fish and Aquatic Resources.
2795	4	The two tunnels will each be 40 feet wide and 30 miles long and run 150 feet below the surface. They will begin at the Steamboat Slough, a major channel of the Sacramento River, and divert water to the Central Valley via a pumping station in Tracy. They will run directly under rich Delta farmland (300 farms estimated to be acquired by eminent domain but no communications to farmers yet), and Staten Island -- the winter home of the sandhill cranes that use the Pacific Flyway.	Please see the response to Comment 2699-3.
2795	5	The Metropolitan Water District of Southern California (Met Water) supplies water to 17 million Californians. It obtains most of its water from elsewhere, Colorado River, and 19% from Sacramento River in wet years. Met Water has not wavered in its support of the tunnel project. They are currently suing the Delta area farmers for using Sacramento River water to irrigate their crops, water to which the Delta farmers have the highest legal right. In addition, documents came to light in September 2015 that appear to outline a plan by Met Water to buy Delta land in the path of the tunnels without publically disclosing that they would be the purchasers.	These comments are outside the scope of the EIR/EIS. No comments on the content or process of the EIR/EIS are presented.
2795	6	Equipment is already being positioned to begin work on the WaterFix site beginning early 2016. The WaterFix project is a reincarnation of the peripheral canal project defeated by voters in public referendum in 1982. It is a 20th century large infrastructure project that doesn't match up to 21st century issues like global warming and drought (i.e., shrinking snowpack in the Sierra). The project will not create one additional drop of water for Californians, will cost an estimated $15 billion to $67 billion and take 10-15 years to build . . . Making drought relief a moot point.	The California WaterFix proposed project is currently under study. Following adoption of the EIR/EIS and several associated approvals by regulatory agencies, design of the conveyance facilities will be initiated. During and following the design phase, additional approvals and permits will be obtained from regulatory agencies. These efforts will be completed over several years prior to the initiation of any construction activities, including obtaining and placement of construction equipment. The fundamental purpose of the project is to make physical and operational improvements to the SWP system in the Delta, water supplies of the SWP and CVP for users located south of the Delta, Delta water quality, and Delta habitat, as described in Section 2.3 of Chapter 2, Project Objectives and Purpose and Need, of the EIR/EIS. As stated in the project objectives and purpose and need, all of the action alternatives would continue the operation of the SWP and CVP in accordance with the existing water rights and regulatory criteria adopted by the State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife. All of the alternatives evaluated in the EIR/EIS would only divert water under existing water rights which were issued to DWR and Reclamation by the State Water Board with consideration for senior water rights and Area of Origin laws and requirements. The proposed project does not seek any new water rights or any changes in total water rights issued to DWR and Reclamation. Operations for the Proposed Project would still be consistent with the criteria set by the U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions and State Water Resources Control Board. Please refer to Master Response 5.
2795	7	The diversion of greater amounts of fresh water from the Sacramento River will result in more intrusion of salt water into Delta farmland and ecosystems. It will render natural fertile farmland useless; eliminate populations of native fish species; change the ecology of Delta waterways, the Suisun Marsh, San Pablo Bay, and San Francisco	No issues related to the adequacy of the environmental impact analysis in the EIR/S were raised. The EIR/S modeling results for the No Action Alternative indicate that, with or without the project, rising sea levels will bring saline tidal water further into the Delta than occurs at present.

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		Bay. Some fish biologists believe that the project will wipe out all 21 native fish species. The slowing currents, increased toxin laden San Joaquin river water, and increased salinity will turn sloughs into weedy polluted marshes with blooms of toxic algae to injure humans, pets, and wildlife. This will impact regional and commercial fisherman; marine owners, workers, [and] farmers; and people who live and work in the Sacramento and San Francisco Bay area. Tourists and future generations of Californians will be deprived of the natural beauty of the vibrant ecology of the largest estuary on the West Coast of the Americas. Many of these forecasted "wasteland areas" are lower income.	
2795	8	The tunnels are vastly larger than needed and current flow of the rivers and could hold 2/3 of the average river flow of the Sacramento River. San Jose Mercury News columnist Paul Rogers said that it is "like building an 8-lane highway and only two lanes would ever be used." Additionally, no operating guidelines or governance plans [are] in place to regulate the WaterFix.	Please see the response to Comment 2699-7.
2795	9	The Environmental Water Caucus has proposed a comprehensive water plan to meet California's needs including more investments in water conservation, groundwater replenishment, storm water catchment, and water recycling. Californians have already stepped up and have conserved 25% through simple low-cost strategies in a short amount of time.	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 California WaterFix is not a comprehensive, statewide water plan, but is instead aimed at addressing many complex and long-standing issues related to the operations of the SWP and CVP in the Delta, including reliability of exported supplies, and the recovery and conservation of threatened and endangered species that depend on the Delta. Although conservation components, water storage, and demand management measures have merit from a statewide water policy standpoint, and are being implemented or considered independently through the state, they are beyond the scope of the proposed project. Appendix 1C, Water Demand Management, in the EIR/EIS, describes conservation, water use efficiency, and other sources of water supply including storm water drainage. While these elements are not proposed as part of the BDCP or the California WaterFix, the Lead Agencies recognize that they are important tools in managing California's water resources.
2795	10	The beneficiaries of this project are not the citizens of California but corporate fruit and nut tree farm interests in the arid region of central California (historically less than 6 inches of water per year). These interests have seen margins in the 30% range using water at subsidized rates. Product is often exported, and tree farms cannot fallow their fields during drought years. Paradise Foods (owned by Stewart and Lee Resnick) currently have 188 square miles of farms of high-margin nut crops that use more water than 9 million Californians. The Resnicks (multi-billionaires) have increased their acreage of water-guzzling crops: walnuts 30%, almonds 47%, and pistachio 118% over the past ten mostly dry years. Recently they have said they will increase the almonds 10% annually. They are consistent political financial campaign contributors.	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. State constitutional restrictions require the reasonable and beneficial use of water and state law requires that water supplied from the Delta be put to beneficial uses. The Lead Agencies do not have the authority to designate what water deliveries are used for.
2795	11	The Governor has used criticism of the Delta levee system in event of earthquakes as justification of moving the water. Geological experts have said the threat to the levees is blown totally out of proportion and any leaks have been prior to 1972 since no funds were allocated for upkeep of the levees. Federal monies have since been allocated and since then there have been no levee failures.	Please see Appendix 6A, Sections 6A.5.2, FEIR/EIS, for information on seismic and levee failure risks in the Delta. For more information regarding floods and levees please see Appendix 6A.
2796	1	I am opposed to the California WaterFix Project. Please stop California's WaterFix project. It will destroy the San Francisco Bay estuary and the nature of jobs around it in favor of farming interests.	The issue raised by the commenter addresses the merits of the project and does not raise any issues with the environmental analysis provided in the EIR/S. The proposed project was developed to meet the rigorous standards of the federal and state Endangered Species Acts, the proposed project is intended to be environmentally beneficial, not detrimental. By establishing a point of water diversion in the north Delta and

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			new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility.
2797	1	Building tunnels to send water southward will ruin the San Francisco Bay and Delta. As a fourth generation San Franciscan, I am adamantly opposed to the 20th Century "solution" to a 21st Century crisis.	Please refer to Master Responses 35 (MWD Water Supply) and 24 (Delta as a Place).
2798	1	I am opposed to [the] twin tunnels project	The comment does not raise any environmental issue related to the 2015 RDEIR/SDEIS or the 2013 DEIR/EIS.
2799	1	The EIR/EIS does not adequately address my concerns about the Delta Tunnel Project. It does not sufficiently address environmental, public health or economic impacts of the proposed Delta Tunnels Project. I am very concerned that this project will have a negative affect on the Delta, the wildlife that live there and the people of Northern and Central California. There has to be a better way to solve water issues than this! The cost will be catastrophic and the loss of water to the Delta after the tunnels are constructed will endanger the entire ecosystem.	Since 2006, the proposed project has been developed based on sound science, data gathered from various agencies and experts over many years, input from agencies, stakeholders and independent scientists, and more than 600 public meetings, working group meetings and stakeholder briefings. DWR's fundamental purpose of the proposed project is to make physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations. By establishing a point of water diversion in the north Delta and new operating criteria to improve water volume, timing, and salinity, the proposed project is designed to improve native fish migratory patterns and allow for greater operational flexibility. Please see Master Response 3 for additional information regarding the purpose and need behind the proposed project. Socioeconomic effects of the various alternatives are described and assessed in Chapter 16, Socioeconomics, of the 2013 Public Draft BDCP EIR/EIS. A Draft BDCP Statewide Economic Impact Report has also been published, which indicates that the BDCP would result in a substantial economic net benefit to the State of California. Please see Master Response 5 for more information on costs and funding.