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30000	63	3	In any event, those "environmental purposes" and safeguards should be spelled out and designed into the system as "including providing cold water within the Sacramento River to help meet the needs of the Sacramento-Shasta Temperature Management Plans, D-1641 and WRO 90-5 and other relevant water quality plans and standards, and to prevent temperature-dependent mortalities for anadromous salmonids and other aquatic species as specified in those plans and in any later Biological Opinions for ESA and/or CESA-listed aquatic species." Targeting ways for meeting these ecosystem needs, and especially for meeting mandatory water quality and temperature standards designed to meet those ecosystem needs, should be written into the Project's purpose, design and management criteria. This new approach would generate a great deal more -- and much broader -- public support. Protecting ESA- and CESA-listed species is not optional, but rather is	Please refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic biological resources, including the benefits to the cold-water pool. Please also refer to Master Response 5 regarding CEQA/NEPA analysis requirements and permitting/Endangered Species Act requirements. Chapter 6, Surface Water Quality, describes the temperature modeling performed under the conditions of Alternatives 1 and 3. As discussed in the Chapter 5 section Operation, Water Temperature, water temperature in Sites Reservoir was modeled using CE-QUAL-W2. The output was used to evaluate temperature on receiving waterbodies in Impact WQ-2. Multiple tables in Chapter 6 show modeled water temperature in different months, including summer months (e.g., the Estimated Change in Sacramento River Water Temperature (°F) when Sites Reservoir Water is Released to the Dunnigan Pipeline under	Reviewed by Client	N/A

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			legally a higher priority for beneficial use of water throughout the hydrological system than any conceivable irrigation use, whether by contract or regular water right. Legally, the BOR and State must protect these species and abide by relevant Biological Opinions to their best ability of what is physically possible. Whether there are any actual "environmental benefits" for salmon in the Sacramento at all in the Project as currently designed is questionable in terms of providing more cold water for anadromous species during summer months. Additional water returned to the Sacramento from Sites Reservoir will likely be warmer water than the ambient temperatures of the river, not cold water, as it will have been sitting in a relatively shallow reservoir with considerable surface area through which to absorb solar energy through the summer. Exactly what will happen to that water, particularly in the middle of the summer when most needed, has not	Alternative 1A table). Under each species impact in Chapter 11, Aquatic Biological Resources, temperature is discussed as it affects fish. Specifically, the Chapter 11 Methods of Analysis, Operations section identifies that "For potential operational water temperature effects on fish in waterways upstream of the Delta, for each fish species and life stage, the analysis evaluated the frequency (and magnitude for salmonids and green sturgeon) of occurence of daily or monthly water temperature model outputs above a specific water temperature index value or outside a specific water temperature index range during different times of year and in locations that overlap with the fish presence. Additional information and results are located in Appendix 11D, Fisheries Water Temperature Assessment." Summer months have been specifically modeled, and potential impacts on fish are disclosed. Note that the necessary permit approvals and authorizations for the		

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			been specifically nor adequately modeled in the RDEIR/SDEIS.	Project clearly include compliance with the federal ESA and CESA.		
30000	68	9	Reasonable and foreseeable actions with- and without-the-project that will greatly affect project accomplishments are complicated, uncertain, and plagued with the reality of water scarcity. It is reasonable and foreseeable to anticipate intensifying and disruptive climate change, water shortages, intense demand and priority for new supplies to meet human health and safety needs, the failure of voluntary settlement agreements to help bridge the gap to improve protection for instream beneficial uses, and failed groundwater management requiring much increased groundwater recharge via diversion and spreading of high winter flows. Collectively these procedural deficiencies render the documents unacceptably misleading.	The remaining text of the Notice of Availability further explains the purpose of the Project: "Water that would be stored and released from Sites Reservoir would be used for local, State, and federal water use needs. These include municipal, industrial, and agricultural uses as well as to provide benefits to anadromous fish species in the Sacramento River watershed, wildlife refuges and habitats, and to help supply food for delta smelt in the Yolo Bypass." Please refer to Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, regarding relationships to other water-related policies, plans, and programs. Please also see Master Response 1 regarding significant and unavoidable impacts. Please refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic biological resources.	Reviewed by Client	N/A

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			Poor decisions will result in waste of public money and public trust resources. The Notice of Availability states "The project's purpose is to provide direct and real benefits to instream flows, the Sacramento-San Joaquin Delta ecosystem, and water supply reliability". Nothing about this project and operations are beneficial for fish save for fish which might inhabit Sites Reservoir. The Project stated purpose and the project's actual impacts do not match.			
30000	68	10	The RDEIR/SDEIS can only be viewed as a hopeful approach anticipating that "If we build it we will find a way to fill it". Today too many surface water supply projects are regularly meeting their need to capture storage by petitioning and getting approval for temporary urgency changes in order to divert water that is not permissible by their issued permits and	In coordination with Reclamation, the Authority would construct, operate, and maintain an offstream reservoir to capture excess water from major storms and store the water until it is most needed during dry periods. Please see Master Response 3, Hydrology and Hydrologic Modeling, which describes the modifications to modeling for Shasta Lake Operations and the resulting benefits to cold-water pool management, fall flow stability, and spring pulse flow actions	Reviewed by Client	N/A

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			licenses. This approach is decimating fishery resources. Future water supply projects shouldn't operate off continual to almost annual temporary urgency change petitions. The reasonable future is that those petitions will eventually be addressed as petitions for long-term change and likely not receive nearly as favorable terms and conditions as in the past.	that would occur under the Authority's and Reclamation's preferred alternative. Please also refer to Master Response 5, Aquatic Biological Resources, for an overview of project benefits. Environmental benefits from the Project are achieved through a number of mechanisms, including exchanges and direct releases from Sites Reservoir, either through the Colusa Basin Drain and Yolo Bypass (all three alternatives) or directly into the Sacramento River. Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, addresses relationships to other water-related policies, plans, and programs, as well as the water rights process.		
32000	63	1	Where are the Environmental Benefits of this Project? "Environmental benefits" and "environmental purposes" of the Project used in part to justify the Project are vague and largely undefined – and in several instances	The Project would work in conjunction with other reservoirs in the system (e.g., Shasta Lake), as described in Chapter 2, Project Description and Alternatives. As described in the Coordination with CVP and SWP section of Chapter 2, this would allow other reservoirs to be operated such	Reviewed by Client	N/A

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			(an noted in our other comments), illusory. Insofar as any of those benefits accrue to improve highly stressed in-river conditions (particularly high temperatures) and to benefit aquatic species (such as Chinook salmon and steelhead) in the Sacramento River, only Alternative 2 makes provisions for returning waters captured from the Sacramento in the winter directly back into the Sacramento (presumably in the summer and fall) to provide cold water benefits for ESA-listed winter run Chinook, spring-run Chinook and steelhead, and also non-listed but declining as well as economically valuable harvested fall-run Chinook in the river. Nowhere in the Project NEPA documents are these "environmental benefits" – particularly the use of stored Project water specifically for reduction of high-water temperatures in the summer that threaten anadromous fishes – spelled out or modeled in any detail.	that they could release water for cold-water pool purposes (e.g., Shasta Lake). In other words, the cold-water pool source and potential benefit under Alternative 2 would not be coming directly from release into the Sacramento River but rather the overall operation of Sites Reservoir in conjunction with the CVP and SWP. Please also refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic biological resources, including the benefits to the cold-water pool. Master Response 5, Aquatic Biological Resource, also provides a description of the methods and use of modeled results in the EIR/EIS.		

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32000	63	2	It appears its history that this Project was conceived and created almost entirely to augment irrigation water supplies, not to actually help solve any of the many serious environmental problems that the CVP and other related water projects have created by way of water over-appropriation, groundwater depletion, and cascading Bay Delta ecosystem collapses that are the underlying causes of the multiple and synergistic ESA- and CESA-listed species crises that are mere symptoms. In short, the Project is designed almost entirely to benefit irrigation, not to store water to meet watershed ecosystem or species conservation needs. We [Pacific Coast Federation of Fishermen's Associations] believe that there may be great merit in the basic concept of setting aside winter water for storage when not needed for fish, so that those waters can then be used to augment summer flows with additional cold water that salmonids need for summer survival. Especially as a way to adapt river conditions to	Please see Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, regarding the relationship with water-related plans, policies, and programs, as well as information regarding opposition or support of the Project. As described in Chapter 1, Introduction, the Project's objectives specifically identify ecosystem benefits and operational flexibility: OBJ-2: Provide public benefits consistent with Proposition 1 of 2014 and use WSIP funds to improve statewide surface water supply reliability and flexibility to enhance opportunities for habitat and fisheries management for the public benefit through a designated long-term average annual water supply. OBJ-3: Provide public benefits consistent with the WIIN Act by using federal funds, if available, provided by Reclamation to improve CVP operational flexibility in meeting CVP environmental and contractual water supply needs and improving cold-	Reviewed by Client	none

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			climate change, the basic concept of substitution flows does, in our view, have some merit. There will of course be some benefits to irrigation as well by making it easier for fish to survive in the system, not only directly (through higher and colder summer flows) but also important benefits in increasing the overall flexibility of management for the whole system, once ecosystem balance is re-achieved. But so far, this Project is not serving that purpose. Instead of designing this Project almost exclusively around meeting irrigation needs, leaving environmental benefits as a mere public relations afterthought, the Project should be specifically redesigned to provide identifiable "environmental benefits" as a first priority, then modeling can determine ways of better meeting irrigation needs without compromising those basic environmental benefits, rather than vice versa as is now the case.	water pool management in Shasta Lake to benefit anadromous fish. OBJ-4: Provide surface water to convey biomass from the floodplain to the Delta to enhance the Delta ecosystem for the benefit of pelagic fishes in the north Delta (e.g., Cache Slough). Please see Master Response 3, Hydrology and Hydrologic Modeling, regarding the modeled representation of the operation of the Project. Master Response 3 describes the modifications to modeling for Shasta Lake Operations and resulting benefits to cold-water pool management, fall flow stability, and spring pulse flow actions that would occur under the Authority's and Reclamation's preferred alternative. Also, please refer to Master Response 5, Aquatic Biological Resources for an overview of project benefits. Environmental benefits from the Project are achieved through a number of mechanisms, including exchanges and direct releases from		

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				Sites Reservoir, either through the Colusa Basin Drain and Yolo Bypass (all three alternatives) or directly into the Sacramento River.		
32000	63	4	Only Alternative 2 would even be capable, as a matter of basic engineering, of returning any of those stored flows directly back to the Sacramento River, as opposed to the nearest irrigation ditch. If these Sites-origin flows are intended to free up other, colder waters (e.g., from Shasta reservoir) to use to maintain cold water fish-flows, this goal has not been specified nor quantified in the RDEIR/SDEIS analysis, and there is thus no guarantee that such mitigation measures would ever occur. In what is clearly an over-appropriated hydrological system, there is always pressure to use whatever water is available for irrigation, rather than for the protection of ESA- and CESA-listed species. Without some guarantees built into Project operations parameters for such fish-flow	The Project would work in conjunction with other reservoirs in the system (e.g., Shasta Lake), as described in Chapter 2, Project Description and Alternatives. As described in the Coordination with CVP and SWP section of Chapter 2, this would allow other reservoirs to be operated such that they could release water for cold-water pool purposes (e.g., Shasta Lake). In other words, the cold-water pool source and potential benefit under Alternative 2 would not be coming directly from release into the Sacramento River but rather the overall operation of Sites Reservoir in conjunction with the CVP and SWP. In addition, the diversion criteria described in the Chapter 2, Diversion Criteria section are part of the Project. The operation of the Project, including the diversion criteria and the use of exchanges, is incorporated in the modeling as part of the Project	Reviewed by Client	None

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			mitigation measures, they remain uncertain and speculative.	and as described in Chapter 2. As such, the operation of the Project is not a mitigation measure. Furthermore, exchanges are not speculative because they currently occur and because the Project would be integrated into the overall system of the State of California. Please also refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic biological resources, including the benefits to the cold-water pool.		
32000	63	5	What is the net annual reduction of total water available, expected through: (a) ground seepage from the reservoir; (b) evaporation; (c) various conveyance losses? These types of water losses would all likely be increased by the process of diverting, storing and then channeling back waters stored in Sites Reservoir. Such water losses should be quantified at the very least so as to determine whether the Project as proposed would even be an effective or efficient way to manage water.	Please see Master Response 3, Hydrology and Hydrologic Modeling, regarding the various losses associated with ground seepage from the reservoir, evaporation, and conveyance.	Reviewed by Client	None

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32000	64	2	Chapter 2: Project Description and Alternatives Section 2.5.2.4. Operations and Management Plans We[Office of Environmental Health Hazard Assessment] recommend that Recreation and Reservoir Management Plans explicitly include the following: - Monitoring for both planktonic and benthic HABs including: (1) frequent visual assessments (such as weekly year-round) and (2) sampling for cyanobacteria and cyanotoxins (such as every two weeks during recreational season and monthly during winter) as well as any time year-round when visual indicators of HABs are present, with samples collected from shore at shoreline recreational sites and in open water areas likely used for boating or fishing. - Actions necessary to address potential HAB-related human and animal impacts such as through	In addition to water quality monitoring and implementation of the RMP HABs action plan, a measure for general informational signage on HABs has been added to the Reservoir Management Plan in Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, of the Final EIR/EIS. Under this measure, general informational signage on HABs will be placed in visible locations around the reservoir, as well as at Peninsula Hills Recreation Area, Stone Corral Creek Recreation Area, boating kiosks, the day-use boat ramp, and/or parking areas. The signage will include basic information regarding what HABs are; how to recognize a bloom; the potential health effects of cyanotoxins; the common signs and symptoms of exposure to cyanotoxins; how to avoid recreational exposure to cyanotoxins; and information about the potential health risks to pets. All reservoir personnel will be made aware of the potential health risks of cyanotoxins and will be provided with the appropriate personal protective	Reviewed by Client	N/A

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			posting general awareness or potential advisory signage for HABs at recreational areas, education on Healthy Water Habits, and the use of personal protective equipment (as needed) for Reservoir personnel.	equipment, as needed, to reduce the potential for exposure to cyanotoxins. This text revision does not change any impact determinations or conclusions. As noted in Appendix 2D of the Final EIR/EIS, the Reservoir Management Plan (RMP) is, and will continue to be, revised throughout the operation of the reservoir. Revisions to the RMP will account for changes to operations, site-specific conditions, adaptive management actions and decisions, and future changes to regulations or methodologies for evaluating water quality constituents. Refinement of the RMP may occur during consultation with agencies.		
32000	64	21	Impact HAZ-7: Result in an impact on public health due to an increase in harmful algal blooms We [Office of Environmental Health Hazard Assessment] recommend that the recreational HAB monitoring plan include HAB monitoring year-round although the frequency could be reduced (such as changing from bi-	Please refer to response to comment 64-2 regarding the reservoir management plan text changes and harmful algal blooms (HABs) monitoring. Also, note that the RMP (Appendix 2D, Best Management Practices, Management Plans, and Technical Studies) includes monitoring for	Reviewed by Client	N/A

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			weekly to monthly) for the winter period. Monitoring should consider the potential for benthic cyanobacteria, which may not be detected with surface water grab samples. Identification of cyanobacteria taxa present by microscopy can inform what toxins may be produced, and also help understand the overall dynamics in the system, such as cyanobacterial succession over time.	benthic HABs and coordination with the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board for posting benthic HABs signage. The RMP will continue to be revised throughout the operation of the reservoir. Revisions to the RMP will account for changes to operations, site-specific conditions, adaptive management actions and decisions, and future changes to regulations or methodologies for evaluating water quality.		
32000	66	7	II. The RDEIR/SDEIS Fails to Use an Accurate and Stable Project Description (A) The RDEIR/SDEIS Fails to Use an Accurate and Stable Project Description Because the Project that the RDEIS/SDEIR Analyzes is Inconsistent with the Project Description The RDEIR/SDEIS violates CEQA because the document fails to use an accurate and stable project	Please see Master Response 2, Alternatives Description and Baseline, regarding a stable Project description and Mitigation Measure FISH- 2.1. Mitigation measures can be incorporated into the Project, eliminating the mitigation measure but retaining the substance of the requirement. Mitigation Measure FISH-2.1 was required to reduce potential life stage effects on salmonids by increasing the bypass flow requirement at Wilkins Slough based on peer-reviewed scientific	Reviewed by Client	None

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			description. In particular, the modeling of operations in the RDEIR/SDEIS, which is the basis for the analysis of potential environmental impacts throughout the document, does not include the proposed mitigation measure FISH-2 (Wilkins Slough Flow Protection Criteria). As a result, the quantitative analysis and modeling in the RDEIR/SDEIS does not analyze the project that is proposed in the RDEIR/SDEIS.	information. The Final EIR/EIS Project description now incorporates the requirements of Mitigation Measure FISH-2.1, which have been refined and made more restrictive. The bypass flow requirement at Wilkins Slough has been incorporated as an element of the Project because it has been developed as an integral component of how the Project is proposed to operate in terms of its water diversion criteria, rather than a separate measure that is applied distinctly from the Project operations and its diversion criteria. Please see Master Response 3, Hydrology and Hydrologic Modeling, regarding the modeled representation of Project operations. The impact analyses contained in the resource chapters evaluate the descriptions of Alternatives 1 through 3 contained in Chapter 2, Project Description and Alternatives. The exchanges and diversion criteria described in Chapter 2 are part of the alternatives. The operation of the alternatives, including the diversion criteria and the use of exchanges, is incorporated		

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				in the modeling of the alternatives. Chapter 2 is supported by Appendices 2C, Construction Means, Methods, and Assumptions, and 2D, Best Management Practices, Management Plans, and Technical Studies, as well as the modeled representation of the alternatives, described in Appendices 5A through 5C.		
32000	66	8	It is black letter law that "[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 193 (1977). CEQA requires a clear explanation of the nature and scope of the proposed project, otherwise it "is fundamentally inadequate and misleading." See Communities for a Better Environment v. City of Richmond, 184 Cal.App.4th 70, 84-85 (2010). In this case, the RDEIR/SDEIS includes inconsistent bypass flow criteria that limit diversions from the Sacramento River in the operational criteria common to all the alternatives.	Please see response to comment 66-7 regarding the Project description and Mitigation Measure FISH-2.1.	Reviewed by Client	None

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			Compare RDEIR/SDEIS at 2-31 to 2-33 (identifying bypass flow criteria of 8,000 cfs at Wilkins Slough in April and May, and 5,000 cfs in other months) with id. at 11-131 (describing the proposed Wilkins Slough Fish Protection Criteria mitigation measure, which requires a 10,700 cfs bypass flow at Wilkins Slough during the months of March through May). Buried deep in the appendices, the RDEIR/SDEIS indicates that the proposed mitigation measure FISH-2 (Wilkins Slough Flow Protection Criteria) is not included in the modeling of the proposed project and alternatives. See, e.g., RDEIR/SDEIS Appendices at 5A1-29, 5A2-28 to 5A2-33. As a result, all of the modeling of proposed operations in the RDEIR/SDEIS common to all of the alternatives -- including modeling and analysis of environmental impacts on surface water supplies, on fish and wildlife, and on water quality -- does not actually model or analyze the effects of the proposed project or			

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			alternatives, and instead the analyses and modeling in the RDEIR/SDEIS are inconsistent with the actual proposed project (which includes this proposed mitigation measure). The document fails to analyze the likely environmental impacts of the proposed project and alternatives because, in light of the document's failure to articulate a stable project description, it fails to analyze the proposed project at all.			
32000	66	9	The inconsistent descriptions of the proposed project are grossly misleading to the public and decisionmakers in violation of CEQA. See, e.g., San Joaquin Raptor Rescue Center v. County of Merced, 149 Cal.App.4th 645, 655-56 (2007) (holding that the project description was inconsistent as to whether the project would increase mining production and violated CEQA, in part based on statements in public hearings on the CEQA document that demonstrated such inconsistencies); Communities for a Better Environment, 184 Cal.App.4th at 83-	Please see response to comment 66-7 regarding the Project description and Mitigation Measure FISH-2.1.	Reviewed by Client	None

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			84 (holding project description violated CEQA because of inconsistent statements regarding the objectives of the project).			
32000	66	11	The RDEIR/SDEIS assumes that there will be water exchanges with Shasta and Oroville reservoirs in certain years, which affects operations of those reservoirs and temperature-dependent mortality of salmon. RDEIR/SDEIS at ES-12, 2-35 to 2-37, 5A-2-30 to 5A-2-33. However, there are no proposed agreements for such exchanges between the CVP or SWP and Sites, and this element of the project is speculative. See id. at ES-10 ("exchanges of water may occur with the CVP and SWP") (emphasis added); id. At 2-35 (acknowledging that the Sites Reservoir Authority is in discussions with the U.S. Bureau of Reclamation ("Reclamation") and the California Department of Water Resources ("DWR") regarding potential exchanges). Equally important, the RDEIR/SDEIS does not	Please see response to comment 66-7 regarding the Project description. The Project would work in conjunction with other reservoirs in the system (e.g., Shasta Lake), as described in Chapter 2, Project Description and Alternatives. As described in the Coordination with CVP and SWP section of Chapter 2, this would allow other reservoirs to be operated such that they could release water for cold-water pool purposes (e.g., Shasta Lake). In addition, the diversion criteria described in the Chapter 2, Diversion Criteria section are part of the Project. The operation of the Project, including the diversion criteria and the use of exchanges, was incorporated in the modeling as part of the Project for the RDEIR/SDEIS and as described in Chapter 2. Exchanges have the potential to assist the CVP and SWP in meeting their regulatory obligations and their	Reviewed by Client	None

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			analyze the potential adverse effects that would result from such exchanges, including potential changes in river flows, redd dewatering, or reductions in juvenile salmon survival, and completely ignores the effects of exchanges with Folsom Reservoir. See RDEIR/SDEIS at 5-27; id. At 11-103 (admitting that the RDEIR/SDEIS needs to "better reflect the exchanges in the model," that these exchanges are difficult to model, and that the RDEIR/SDEIS underestimates the extent of potential exchanges that could occur under the proposed project). [Footnote 4: The RDEIR/SDEIS also admits that Sites Reservoir cannot release water to GCID and other participants located between the Hamilton City Pump Station and Knights Landing, and that deliveries of water to those participants would be made by GCID and Reclamation. RDEIR/SDEIS at 2-34. The RDEIR/SDEIS does not appear to analyze the effects of additional Shasta Dam releases by Reclamation to fulfill such exchanges, which could	authorized purposes, including to protect, restore, and enhance fish, wildlife, and associated habitats; provide water supply; and generate power. Exchanges are not speculative because they currently occur and because the Project would be integrated into the overall system of the State of California. The CVP and SWP each have responsibility for meeting objectives as defined in the Coordinated Operations Agreement, but they collaboratively decide the timing for each project to contribute toward meeting objectives. Therefore, there are times when releases from Shasta Lake may be prioritized over Folsom Lake and vice versa. Sites Reservoir exchanges with Folsom Lake were considered in the RDEIR/SDEIS as a potential benefit but were not included in the CALSIM modeling. Therefore, they are no longer included as part of the operations of the Project in the Final EIR/EIS, and modeling results have not changed. Please refer to Master Response 3, Hydrology and Hydrologic Modeling, for further descriptions of Shasta Lake		

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			be particularly impactful to the environment in drier years.] Because the RDEIR/SDEIS fails to provide an accurate and stable project description, the document fails to model and analyze the environmental impacts of the proposed project and alternatives, in violation of CEQA and NEPA.	and Lake Oroville exchanges. The modeling has been refined for the Final EIR/EIS and is reflected in the impact analysis throughout the document. The Chapter 5, Surface Water Resources, CALSIM section summarizes some of the modeling results and assumptions related to exchanges. The impacts related to changes in flow, redd dewatering, or reductions in juvenile salmon survival as a result of exchanges are addressed using modeling results and multiple lines of evidence in Chapter 11, Aquatic Biological Resources, including how Folsom Lake is currently operated to meet requirements, which would remain in place under operation of the Project. Please refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic biological resources, including the benefits to the cold-water pool.		
32000	66	12	Because these exchanges [between Shasta and Oroville Reservoirs] would be intended to "assist the CVP and SWP in meeting their regulatory	Please see response to comment 66-11 regarding exchanges. Please see Master Response 2, Alternatives Description and Baseline, and Master	Reviewed by Client	None

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			obligations," RDEIR/SDEIS at 2-35, these exchanges do not provide public benefits that justify public taxpayer expenditures for this project. These exchanges are effectively water supply benefits to the contractors of the CVP and SWP who are obligated to pay for meeting regulatory requirements of the CVP and SWP.	Response 3, Hydrology and Hydrologic Modeling, regarding exchanges. Sites Reservoir exchanges with Shasta Lake would improve Reclamation's ability to preserve cold water later in the summer. The modeling of Project exchanges with Shasta Lake were adjusted in the Final EIR/EIS to increase spring flow pulses and improve fall flows consistent with the operational criteria. Cold-water pool management continues to be an objective of exchanges that may occur under Project conditions.		
32000	66	13	(B) The RDEIR/SDEIS Fails to Use an Accurate and Stable Project Description Because the Overall Project Design is Not Final and Major Project Components Have Not Been Designed at All The RDEIR/SDEIS also fails to provide an accurate and stable project description because the overall project design is not yet final and major project components that will have significant environmental impacts have not been designed at	Please see Master Response 2, Alternatives Description and Baseline, regarding the appropriate level of detail in the Project description. The alternatives have been described to an appropriate level of detail to allow decision makers and the public to understand the nature and magnitude of impacts on the environment for each resource topic, to compare the different options available for accomplishing the Project, to identify feasible mitigation for potentially significant impacts, and to make a	Reviewed by Client	None

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			all. The RDEIR/SDEIS states that, "[a]s with any large infrastructure project, the Project must and will continue toward final design. Project components will be refined as the Project moves toward final design and as parcels become accessible to survey." RDEIR/SDEIS at 3-7; see also id. At 9-20 (explaining that estimates of acreage of impacts to plant habitats and wetlands is based on "preliminary engineering design"). While the RDEIR/SDEIS acknowledges that the overall project design is not yet final, it does not clearly describe what project components could change and how. It is impossible for the public to understand the environmental impacts of the project and to meaningfully comment when it is not yet clear what the project is.	decision about whether, and if so how, to approve the Project. Please also see Master Response 6, Vegetation, Wetland, and Wildlife Resources, regarding the impacts associated with footprints.		
32000	66	14	In addition to vague statements about the lack of finality of the project's design, the RDEIR/SDEIS highlights particular project components that have not been designed at all. For example, it appears that the locations for major sections of the project's 46	Please see Master Response 2, Alternatives Description and Baseline, regarding the appropriate level of detail in the Project description. The EIR/EIS includes specific information and data on the location, design, schedule, and operation for all Project	Reviewed by Client	None

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			miles of new paved and unpaved roads have not yet been determined. See, e.g., RDEIR/SDEIS at 9-15 ("The exact locations of the realigned Huffmaster Road, new Comm Road South, and new South Road are not yet finalized."); 9-44 ("exact locations of construction-related activities are not known for the new roads"). As the RDEIR/SDEIS acknowledges, these roadways could cause significant impacts to waterways, wetlands, and wildlife: New roadways would create physical barriers or impediments for some wildlife, including amphibians and reptiles, which may have a difficult time crossing the roadways. There are numerous waterways and wetlands in the study area, and new or larger roadways could disrupt existing connections between aquatic and upland habitats, and result in increased habitat fragmentation, which could affect seasonal movements of amphibians and reptiles. Roadways may deter some larger animals from moving through	components for each of the alternatives evaluated based on the current level of design detail. Where design detail was not available for facilities, such as the transmission corridors and roads, conceptual corridors were used to capture the maximum range of impacts. This corridor approach also is intended to provide flexibility to avoid resources as the design is refined. As described further in Chapter 9, Vegetation and Wetland Resources, because the exact corridor of the roads is not finalized, the analysis includes a wider corridor than expected for roads, such that the roads would be built within the corridor evaluated. From Chapter 9: "The exact locations of the realigned Huffmaster Road, new Comm Road South, and new South Road are not yet finalized. Therefore, corridors have been used to identify potential direct and indirect impacts. For example, on the South Road a 400-foot-wide conceptual road alignment plus a 300-foot-wide buffer has been identified to allow for design flexibility. Because the final South		

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			those areas, even if they are able to physically cross the roadways. In addition, some of the roadways may be fenced, which would create a greater impediment to large animals attempting to cross the road. New roadways would also increase the potential for wildlife to be struck by vehicles of workers traveling to operations facilities or visitors traveling to recreation areas, and the presence of fences could trap animals in the roadway and make them more prone to being struck by vehicles. RDEIR/SDEIS at 10-139. Yet there is no meaningful discussion of the impacts of specific roads to specific resources and no exploration of alternative routes that could minimize impacts because specific road locations have not been proposed.	Road corridor is unknown, the entire corridor was assumed to be permanently affected for the purposes of the impact analysis. Within the corridors, the actual permanent impact area would be only the footprint of roads and shoulders with additional temporarily affected areas for construction staging and equipment movement." The use of corridors for linear features, such as roads or pipelines, in CEQA/NEPA documents is typical and appropriate because it allows the public and decision makers to understand resources that may exist within a corridor and the potential impacts. This corridor approach serves to allow identification and evaluation of a maximum envelope of impact resulting from the roadways, such that the impacts from any particular road alignment and configuration within the corridor are appropriately captured by the environmental analysis. The disclosure of the potential impacts on vegetation and wetland resources associated with the		

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				corridors is included in Chapter 9, as appropriate.		
32000	66	15	The RDEIR/SDEIS suggests that the lack of information about roadway locations is not a problem because the lead agencies have estimated the maximum extent of impacts by assuming that resources within the broader "road alignment corridor" will be impacted and because "roads ...will be designed, to the extent practicable, to avoid direct and indirect impacts.." RDEIR/SDEIS at 9-45 to 9-46. This approach undermines core purposes of CEQA and NEPA. First, it fails to provide the public with an accurate assessment of the project's impacts, and instead provides only an unrealistic overestimate of impacts that is not reflective of the actual project. Second, it deprives the public of an opportunity to comment on alternative alignments or approaches that could reduce the roadways' environmental impacts, deferring the process of selecting roadway locations to an unspecified future date when there will be no	Please see response to comment 66-14 regarding the appropriate level of detail in the Project description and the road corridors evaluated in the EIR/EIS. Please also see Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, regarding the CEQA/NEPA process. The identification of a road alignment corridor does not undermine CEQA or NEPA. It allows for a conservative impact approach that appropriately captures the types and magnitude of impacts from potential roadway configurations.	Reviewed by Client	None

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			opportunity for public input and review pursuant to the procedures set forth in NEPA and CEQA.			
32000	66	16	Basic details about other key project components that could significantly impact the environment are also unknown. Large recreation areas are not yet designed, depriving the public of an opportunity to understand a realistic picture of their impacts and comment on alternative designs that could reduce those impacts. RDEIR/SDEIS at 9-24 ("The permanent footprint of these recreation areas is currently at a conceptual design stage, and the actual location of facilities is not yet known."). For electrical transmission lines, the RDEIR/SDEIS indicates that "[o]nly one of the two north-south transmission line alignments described in Chapter 2 would be constructed, and specific locations for the transmission line towers are currently unknown." RDEIR/SDEIS at 9-14. Transmission line can have serious impacts to birds and the towers can destroy vernal pool wetlands and other important	Please see response to comment 66-14 regarding the appropriate level of detail for the Project description. The Project would include construction of two primary recreation areas (the Peninsula Hills Recreation Area and the Stone Corral Creek Recreation Area), and a day-use boat ramp area, as described in Chapter 16, Recreation Resources. Impacts associated with construction and operation of recreation areas and transmission lines are evaluated in Chapter 10, Wildlife Resources, including mitigation measures. For example, Impact WILD-1j describes the potential impacts and provides mitigation measures to reduce impacts associated with transmission lines (e.g., Mitigation Measure WILD-1.27). Many impacts and mitigation measures in Chapter 10 address the construction and operation of the Project including recreation areas. Therefore, the public and decision	Reviewed by Client	None

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			landscape features. Yet the RDEIR/SDEIS does not provide the public with an opportunity to understand the project's impacts or suggest alternatives because it lacks basic information like the locations of transmission line towers. Similarly, the RDEIR/SDEIS discusses the need for upgrades to the GCID canal but indicates that the details will be worked out in the future. RDEIR/SDEIS at 2-9 ("The GCID system may require several upgrades to support the operation of Sites Reservoir. The specific details of these upgrades would be confirmed during future hydraulic modeling and assessment of system conditions."). There are likely threatened giant garter snakes in the GCID system, and the location, timing, and method of construction matters greatly for avoiding and minimizing impacts to this sensitive species. Once again, the RDEIR/SDEIS fails to provide the public with a meaningful opportunity to understand those impacts and suggest alternative	makers have had an opportunity to understand the types of impacts on birds associated with the Project including recreation area and transmission lines and the mitigation measure(s) needed to reduce impacts. Regarding the GCID system upgrades, Chapter 2, Project Description and Alternatives, describes upgrades that would result in potential environmental impacts associated with construction or operations: "…for purposes of assessing environmental impacts for this document, it is conservatively assumed that upgrades would be constructed at various locations along the GCID Main Canal, as described below. GCID would manage the facility upgrades using an approach consistent with its existing management practices." The upgrades described include replacing siphons and canal upgrades. Construction timeframes and means and methods are described in Chapter 2 and Appendix 2C, Construction Means, Methods, and Assumptions. Therefore, the EIR/EIS identifies and		

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			approaches because the document omits the most basic planning details.	describes construction and operations details of upgrades and analyzes the potential environmental effects associated with those upgrades throughout the document. Specifically, for potential impacts on giant gartersnake as a result of construction in or near the GCID Main Canal, please see Impact WILD-1i for a discussion of those impacts. To address these impacts, Mitigation Measure WILD-1.20 provides protective measures, such as timing of construction and preconstruction surveys, to avoid causing giant gartersnake injury and mortality.		
32000	69	1	Page ES-8 - Table ES-1: Releases into Funks and Stone Corral Creeks, should be based on the Historical ecological functions of each creek, not to create "Healthy Fish" habitat where none previously existed.	As described in Chapter 2, Project Description and Alternatives, "The Project has the capacity to make releases from Sites Reservoir into Funks and Stone Corral Creeks should they be necessary to comply with California Fish and Game Code Section 5937 and ensure no harm to downstream water right holders on these creeks (Footnote 4: The owner of any dam shall allow sufficient water at all times to pass through a fishway,	Reviewed by Client	None

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				or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway)."		
32000	69	2	Page ES-10 - Facility Elements: The 100' buffer around the Reservoir and Facilities seems to be in some instances quite excessive.	As noted in the Chapter 2, Project Description and Alternatives, section titled Project Buffer, the 100-foot buffer could be less in some locations if a facility is near a property boundary and the associated uses do not conflict with those on the adjacent lands.	Reviewed by Client	None

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32000	69	6	Page ES-26 - Table ES-2 - Impact FISH-2: The information/data that evolved into creating an increase in the Wilkins Slough flow criteria needs to be wholly vetted by various peers in the industry before imposing a baseline criteria.	Please see Master Response 2, Alternatives Description and Baseline, regarding refinements to the alternatives description. As identified in Chapter 11, Aquatic Biological Resources, the Wilkins Slough criteria under alternative conditions were informed by peer-reviewed scientific literature (Michel et al. 2021). In addition, as described in Appendix 2B, Additional Alternatives Screening and Evaluation, the Authority worked with California Department of Fish and Wildlife (i.e., peers in the industry) during the value planning process regarding operational criteria.	Reviewed by Client	Michel, C., J. Notch, F. Cordoleani, A. Ammann, and E. Danner. 2021. Nonlinear survival of imperiled fish informs managed flows in a highly modified river. Ecosphere. DOI: 10.1002/ecs2.3498
32000	72	7	II. The RDEIR/SDEIS Fails to Provide an Accurate and Stable Project Description. [Footnote 3: For the entirety of Section II, the NGO Coalition requests the Sites Project Authority also refer to the analysis contained in the NRDC et al. RDEIR/SDEIS comments as well.] The RDEIR/SDEIS violates CEQA because it fails to use an accurate and stable project description. In particular, the modeling of operations in the	Please see Master Response 2, Alternatives Description and Baseline, regarding a stable Project description and Mitigation Measure FISH- 2.1. Mitigation measures can be incorporated into the Project, eliminating the mitigation measure but retaining the substance of the requirement. Mitigation Measure FISH-2.1 was required to reduce potential life stage effects on salmonids by increasing the bypass	Reviewed by Client	None

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			RDEIR/SDEIS, which is the basis for the analysis of potential environmental impacts throughout the document, does not include the proposed mitigation measure FISH-2, Wilkins Slough Flow Protection Criteria. As a result, the quantitative analysis and modeling in the RDEIR/SDEIS does not analyze the project that is proposed in the RDEIR/SDEIS. [Footnote 4: See, e.g., RDEIR/SDEIS Appendices at 5A1-29, 5A2-28 to 5A2-33.] Additionally, different RDEIR/SDEIS chapters and appendices use different modeling and analyses, making inconsistent analysis throughout the document and therefore not a stable project description.	flow requirement at Wilkins Slough based on peer-reviewed scientific information. The Final EIR/EIS Project description now incorporates the requirements of Mitigation Measure FISH-2.1, which have been refined and made more restrictive. The bypass flow requirement at Wilkins Slough has been incorporated as an element of the Project because it is has been developed as an integral component of how the Project is proposed to operate in terms of its water diversion criteria, rather than a separate measure that is applied distinctly from the Project operations and its diversion criteria. Please also see Master Response 3, Hydrology and Hydrologic Modeling, regarding the modeled representation of Project operations. The impact analyses contained in the resource chapters evaluate the descriptions of Alternatives 1 through 3 contained in Chapter 2, Project Description and Alternatives. The exchanges and diversion criteria described in Chapter 2 are part of the alternatives. The		

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				operation of the alternatives, including the diversion criteria and the use of exchanges, is incorporated in the modeling of the alternatives. Chapter 2 is supported by Appendices 2C, Construction Means, Methods, and Assumptions, and 2D, Best Management Practices, Management Plans, and Technical Studies, as well as the modeled representation of the alternatives described in Appendices 5A, Surface Water Resources Modeling of Alternatives; 5B, Water Resources System Modeling; and 5C, Upper Sacramento River Daily River Flow and Operations Model.		
32000	72	8	Despite the absence of a complete Reservoir Operations Plan, the RDEIR/SDEIS also assumes that there will be water exchanges with Shasta and Oroville reservoirs in certain years. [Footnote 5: RDEIR/SDEIS at ES-12, 2-35 to 2-37, 5A-2-30 to 5A-2-33, Because these exchanges would be intended to "assist the [Central Valley Project] and [State Water Project] in meeting their regulatory obligations," RDEIR/SDEIS at 2- 35, these	Please see response to comment 72-7 regarding the Project description. The Project would work in conjunction with other reservoirs in the system (e.g., Shasta Lake), as described in Chapter 2, Project Description and Alternatives. As described in the Coordination with CVP and SWP section of Chapter 2, this would allow other reservoirs to be operated such that they could release water for cold-water pool purposes (e.g., Shasta	Reviewed by Client	None

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			exchanges do not provide public benefits that justify public taxpayer expenditures for this project. These exchanges are effectively water supply benefits to the contractors of the CVP and SWP who are obligated to pay for meeting regulatory requirements of the CVP and SWP. Additionally, the NGO Coalition that this supposed benefit from the Project will incentive less spill at Oroville in the spring, an important seasonal time for cold-water fisheries.] However, there are no proposed agreements for such exchanges between the Central Valley Project ("CVP") or State Water Project ("SWP") and Sites, and this element of the Project is hypothetical. [Footnote 6: See id. At ES-10 ("exchanges of water may occur with the CVP and SWP") (emphasis added); id. At 2-35 (acknowledging that the Sites Reservoir Authority is in discussions with the U.S. Bureau of Reclamation ("USBR") and the California Department of Water Resources ("DWR") regarding potential exchanges).] Equally important, the RDEIR/SDEIS does not analyze the	Lake). In addition, the diversion criteria described in the Chapter 2, Diversion Criteria section are part of the Project. The operation of the Project, including the diversion criteria and the use of exchanges, was incorporated in the modeling as part of the Project for the RDEIR/SDEIS and as described in Chapter 2. Exchanges are not speculative because they currently occur under existing baseline conditions and because the Project would be integrated into the overall system of the State of California. Under baseline conditions, the CVP and SWP each have responsibility for meeting objectives as defined in the Coordinated Operations Agreement, but they collaboratively decide the timing for each project to contribute toward meeting objectives. Therefore, there are times when releases from Shasta Lake may be prioritized over Folsom Lake, and vice versa. Sites Reservoir exchanges with Folsom Lake were considered in the RDEIR/SDEIS as a potential benefit but were not included in the CALSIM modeling.		

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			potential adverse effects that would result from such exchanges, including potential changes in river flows, redd dewatering, or reductions in juvenile salmon survival, and completely ignores the effects of exchanges with Folsom Reservoir. [Footnote 7: See RDEIR/SDEIS at 5-27; id. At 11-103 (admitting that the RDEIR/SDEIS needs to "better reflect the exchanges in the model," that these exchanges are difficult to model, and that the RDEIR/SDEIS underestimates the extent of potential exchanges that could occur under the proposed project). The RDEIR/SDEIS also admits that Sites Reservoir cannot release water to Glenn-Colusa Irrigation District ("GCID") and other participants located between the Hamilton City Pump Station and Knights Landing, and that deliveries of water to those participants would be made by GCID and USBR. RDEIR/SDEIS at 2-34. The RDEIR/SDEIS does not appear to analyze the effects of additional Shasta Dam releases by the USBR to fulfill such exchanges, which could be	Therefore, they are no longer included as part of the operations of the Project in the Final EIR/EIS, and modeling results have not changed. Please refer to Master Response 3, Hydrology and Hydrologic Modeling, for further descriptions of Shasta Lake and Lake Oroville exchanges. The modeling has been refined for the Final EIR/EIS and is reflected in the impact analysis throughout the document. The Chapter 5, Surface Water Resources, CALSIM section summarizes some of the modeling results and assumptions related to exchanges. The impacts related to changes in flow, redd dewatering, or reductions in juvenile salmon survival as a result of exchanges is addressed using modeling results and multiple lines of evidence in Chapter 11, Aquatic Biological Resources, including how Folsom Lake is currently operated to meet requirements, which would remain in place under operation of the Project. Please refer to Master Response 5, Aquatic Biological Resources, regarding benefits to aquatic		

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			particularly impactful to the environment in drier years.] As a result of all these deficiencies, all of the modeling of proposed operations in the RDEIR/SDEIS does not actually model or analyze the effects of the proposed Project or alternatives, and instead is inconsistent with the actual proposed Project. Therefore, the document fails to analyze the likely environmental impacts of the proposed Project and alternatives altogether.	biological resources, including the benefits to the cold-water pool.		
32000	72	51	Again, without an adequate and stable description of all aspects of the Project plan, its likely impacts simply cannot be analyzed, and this violates the very purposes of both CEQA and NEPA. It is simply not enough to state, as is done above, [quote from RDEIR/SDEIS, pg. 11-86: "Potential exposure of juvenile salmonids to the Red Bluff and Hamilton City fish screens would be addressed by technical studies focused on diversions at these locations during high winter flow conditions when	Please see Master Response 2, Alternatives Description and Baseline, regarding a stable Project description. The quote identified by the commenter is selected from a much larger impact analysis in Chapter 11, Aquatic Biological Resources, Impact FISH-2, that includes multiple lines of evidence, including the spatial distribution of migrating fish within the Sacramento River channel at the Red Bluff and Hamilton City intakes, the operation of the intakes, peer-reviewed scientific literature, and	Reviewed by Client	None

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			Project diversions would occur (Appendix 2D)."] that all these issues would somehow be addressed later in time, i.e., long after the CEQA and NEPA stage has passed.	estimates of potential entrainment and impingement. The impact analysis concludes, based on multiple lines of evidence, that "Entrainment risk would be expected to be similar between NAA [No Project Alternative] and Alternatives 1, 2, and 3 for juvenile winter-run Chinook salmon." It further concludes that "The available information generally suggests that impingement and screen passage/contact-related negative effects of the operation of the Red Bluff and Hamilton City intakes would be limited, particularly given that these effects would only apply to the subset of juvenile winter-run Chinook salmon encountering the intakes. The Red Bluff and Hamilton City fish screens are designed to protective standards for Chinook salmon fry and so near-field effects would be expected to be limited." The potential for near-field effects, including entrainment, is analyzed in the RDEIR/SDEIS with best available information, indicating limited potential for effect of the Project. As		

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				noted in the Fish Monitoring and Technical Studies Plan and Adaptive Management for Diversions section of Appendix 2D, technical studies would verify the facilities' performance during high winter flow conditions under which the Project would be diverting in the future, a situation that currently does not occur. This would be part of adaptive management for the diversions. The technical studies would describe factors such as juvenile salmonid migration survival in high flow conditions prior to Project operations, compliance with protective criteria for screen hydraulics in high flow conditions, and changes resulting from initial and continued Project operations in high flow conditions. Additional studies would provide data and reports to document compliance with National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) fish screen performance criteria in high flow conditions when Project diversions would occur; the studies would be submitted to NMFS, U.S. Fish and		

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				Wildlife Service, and CDFW for review and to inform adjustments or refinements in Project operations for the protection of fish species. An Adaptive Management Science Team (AMS Team) would use the results to determine if and what actions may be needed (e.g., adjustments in diversion operations timing).		
32000	72	52	This effort to indefinitely defer actual analysis of entrainment impacts simply begs the question: "What happens if entrainment at these intakes is found to be unacceptably high?" The current Project plan does not seem to answer this question, but rather it goes through a convoluted reasoning process [Footnote 47: RDEIR/SDEIS, pgs. 11-91 to 97.] to justify the largely still unsupported assertion that: "The Red Bluff and Hamilton City fish screens are designed to protective standards for Chinook salmon fry and so near-field effects would be expected to be limited. Impingement could be monitored at the Red Bluff	The commenter suggests there is an effort to defer analysis of entrainment. Please see response to comment 72-51 regarding existing fish screens, entrainment, near-field effects, and potential impacts. Also see Master Response 5, Aquatic Biological Resources, for response to comments on entrainment. The cited information (RDEIR/SDEIS:11-91–11-97) in the comment is a review of the available literature to inform the potential for negative near-field effects, which, in association with fish screens meeting fish agency criteria, informs the conclusion that near-field effects would be limited. The commenter	Reviewed by Client	None

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			and Hamilton City intakes during high winter flow conditions when Project diversions would occur (Appendix 2D)." This is more like simply taking these pre-existing intakes as they now are, rather than bringing them up to higher standards based on best available design criteria -- and hoping for the best. At the least, if there is to be meaningful monitoring in accordance with Appendix 2D, there should be certain entrainment "triggers" and caps above which, if these levels are reached, the intakes will be redesigned or operated to minimize such problems.	does not provide any examples of information that would contradict the information provided for this conclusion. The AMS Team, as described in response to comment 72-51, would use the results of the technical studies and adaptive management to determine if and what actions may be needed similar to the commenter's suggestion that there be certain "triggers" and caps for entrainment.		
32000	72	87	The post-building data collection protocol is deficient. The Reservoir Management Plan (Page 2D-37) states that "[p]ast studies of metal concentrations in the Sacramento River have not focused on high flows that will be the source water for Sites Reservoir. Metal concentrations at the diversion(s) will be measured within 24 hours of the start of diversions at	Please refer to Master Response 4, Water Quality, for a discussion of metals monitoring, the application of the reservoir management plan related to metals monitoring, and coordination with agencies regarding monitoring.	Reviewed by Client	N/A

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			RBPP and every 2 weeks during continuous diversions." [Footnote 81: Emphasis added.] "After 2 years of measuring metal concentrations in the diversions, the frequency of measurements will decrease to monthly." The measuring of metal loads might be inconvenient during high flow precipitation events, but this is exactly the time to target the data collection. A set schedule of monitoring would inevitably miss the close relationship between flow and metals concentrations. Event based monitoring may require data collection biweekly, weekly, or daily as flow conditions vary.			
32000	73	2	The DEIR/S indicates that a draft of the Reservoir Operations Plan is expected to be completed in late 2021 (DEIR/S, p. 2-42), but it is not clear that has been completed. The lack of a Reservoir Operations Plan hinders the ability of the public to review the potential impacts of the project.	Please see Master Response 2, Alternatives Description and Baseline, regarding the reservoir operations plan.	Reviewed by Client	N/A

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32000	75	3	As noted in the RDEIR/SDEIS, the Sites Project proposes to divert excess flows from the Sacramento River. The unregulated flows downstream of the rim reservoirs constitute a significant portion of the SWP water supplies in addition to the water supply stored in Lake Oroville. The RDEIR/SDEIS notes that proposed diversions for the Sites Project would not impact SWP's ability to capture unregulated or excess flows. This commitment should be formalized in the Sites Project operations agreements with DWR and should include criteria that would protect the SWP water supplies and its ability to meet regulatory and contractual obligations. The operations agreements should also spell out how the Sites Reservoir operations would be accounted for and tracked to ensure ongoing SWP and CVP operations are not impacted.	Please see Chapter 5, Surface Water Resources, for a discussion of the Project's impacts on SWP water supplies. As described in Chapter 5, Impact HYDRO-1, "c." Please see Master Response 2, Alternatives Description and Baseline, regarding coordination with SWP and CVP and the Authority's standing as a junior water right holder for Sites Reservoir. Based on current discussions between the Authority and Reclamation, as well as with California Department of Water Resources, there will be accounting in the agreements. This type of accounting may be identified in the operations plan. As described in Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, the Project requires a water right and all agreements will be respect existing water rights. Consideration of a water right application is a discretionary action taken by the State Water Board that requires a determination that unappropriated water is available, a	Reviewed by Client	N/A

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				review of potential impacts to public trust resources, and a determination that the appropriation of water is in the public interest. The discretionary action by the State Water Board regarding issuance of the water right is a separate and distinct process from the CEQA and NEPA process.		
32000	75	4	The RDEIR/SDEIS also notes that the proposed operations of the Sites Project would rely on the SWP facilities, including Lake Oroville, to provide the water supply benefits to the Sites Project Storage Partners. The Sites Project operations agreements with DWR should ensure that the use of SWP facilities to provide benefits to Sites Project Authority or Storage Partners do not adversely impact SWP water supply or increase costs to the SWC [State Water Contractors] members. Similarly, the agreements should ensure that the SWP is not backstopping the Delta outflow benefits proposed to be provided by the Sites Project.	Please see response to comment 75-3 regarding agreements and the operations plan. Based on the analyses and modeling contained in the EIR/EIS, there are no adverse impacts on State Water Project facilities. Please see Appendix 5B4, Regional Deliveries, and Appendix 5B5, Water Supply.	Reviewed by Client	N/A

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32000	77	11	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.1, GCID Main Canal Diversion and System Upgrades. Page(s): p. 2-9. Comment and Recommendations: The RDEIR/SDEIS states that "The Project would involve the installation of a new 3,000-cfs GCID Main Canal head gate structure about 0.25 mile downstream of Hamilton City Pump Station" (p. 2-9). However, the existing head gate structure would be left in place to continue to serve as a bridge and continue to be operated during construction of the new head gate. The FEIR/FEIS should include the monitoring protocols necessary to ensure the new setbacks do not increase fish entrainment.	The Near-Field Effects subsections of Chapter 11, Aquatic Biological Resources, Impacts FISH-2 through FISH-11. FISH-13, FISH-14, and FISH-16 identify that there would be no increase in fish entrainment as a result of operation of the GCID head gate. Furthermore, Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, describes technical studies to take place as part of a collaborative science program following an adaptive management process, such as monitoring at the Hamilton City Pump Station, including entrainment/impingement monitoring. Appendix 2D describes that aquatic monitoring would be implemented by Reclamation, the Authority, and GCID and/or TCCA, with input from a multiagency *Adaptive Management Science Team (AMS Team)* that includes representatives from Reclamation, the Authority, GCID, TCCA, National Marine Fisheries Service, U.S. Fish and	Reviewed by Client	N/A

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				Wildlife Service, and California Department of Fish and Wildlife.		
32000	77	12	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.2, Funks Reservoir. Page(s): p. 2-13. Comment and Recommendations: The RDEIR/SDEIS states that "The Project would not alter the footprint of Funks Reservoir; however, 740,000 cubic yards of sediment that has accumulated since its constructed would be excavated from the reservoir" (p. 2-13). This could significantly impact native fish species that may be present in the reservoir. CDFW recommends listing existing fish population in Funks reservoir, detailing the work window when the excavation will occur, and where the excavated material will be deposited.	The dredging of Funks Reservoir and potential impacts on fish are evaluated in Chapter 11, Aquatic Biological Resources, Impact FISH-1. In addition, the Aquatic Species of Management Concern by Area of Occurrence table in Chapter 11 also identifies the fish that have the potential to occur in the Funks Creek and Stone Corral Creek systems. Chapter 2, Project Description and Alternatives, describes where the material would be stockpiled and describes the timing (work window) of the activities: "The excavated sediment would be stockpiled adjacent to Funks Reservoir as shown on Figure 2-15. The sediment may be used for construction purposes, if suitable, or graded in place and revegetated. The reservoir is usually dewatered from the end of December through early February for TC Canal maintenance purposes."	Reviewed by Client	None

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32000	77	13	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.4, Inlet/Outlet Works. Page(s): p. 2-17. Comment and Recommendations: Insufficient information was provided to assess whether the I/O Tower port elevations will provide sufficient flexibility in the management of water temperature and/or water quality. CDFW recommends conducting an analysis of operational flexibility resulting from the proposed port locations for inclusion in the FEIR/FEIS.	The I/O tower port elevations are incorporated into the analysis throughout the EIR/EIS, where applicable. The modeling performed for the EIR/EIS discloses potential impacts considering the I/O tower port elevations. The methodologies and impact analysis account for the ability of water to be withdrawn and discharged from different ports on the I/O tower, as would occur during operations. For example, in Chapter 6, Surface Water Quality, in the Methods, Water Temperature section, water temperature in Sites Reservoir was modeled using CE-QUAL-W2 and considered the multiple tiers in the I/O tower (centerlines at 340, 370, 390, 410, 430, and 450 feet elevation, with an additional outlet at 470 feet for Alternatives 1 and 3) and at the low-level intake with centerline at 311 feet. In addition, in the Chapter 6, Impact WQ-2, Harmful Algal Blooms section, the evaluation takes into consideration the operation of the I/O tower ports. Impacts WQ-1, WQ-2, and WQ-3 consider operation of different ports on the I/O tower with	Reviewed by Client	None

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				respect to temperature and water quality. In addition, see Master Response 4, Water Quality, for additional information regarding the I/O tower port elevations.		
32000	77	14	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.4, Dams and Dikes. Page(s): p. 2-20. Comment and Recommendations: The RDEIR/SDEIS states that "Water in Stone Corral Creek would be diverted directly into the creek diversion pipeline through the Sites Dam abutment and re-enter the creek channel on the east side of the Sites Dam work area. The outlet tunnel with two 84-inch-diameter fixed cone valves would accommodate these releases, and an energy dissipating chamber would reduce the velocity of the water released" (p. 2-20). CDFW recommends the FEIR/FEIS include provisions to monitor the velocities and temperatures of water releases into Funks and Stone Corral creeks.	As described in Chapter 2, Project Description and Alternatives, and Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, monitoring of releases into Funks and Stone Corral Creeks would occur downstream of the reservoir. This type of monitoring would likely include velocities and temperature such that fish can be maintained in good condition consistent with California Fish and Game Code Section 5937.	Reviewed by Client	None

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32000	77	15	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.5, Dunnigan Pipeline. Page(s): p. 2-22. Comment and Recommendations: The RDEIR/SDEIS states that "construction would include open cut of approximately 100 feet to cross Bird Creek in the dry season" (p. 2-22). CDFW recommends that the FEIR/FEIS include baseline conditions for Bird Creek in the Proposed Project analysis.	Bird Creek is described in Chapter 7, Fluvial Geomorphology, in multiple sections, including the Other Valley Drainages section and the Impact Analysis and Mitigation Measures section. Potential impacts related to Bird Creek are described in Chapter 7, Impact FLV-1.	Reviewed by Client	None
32000	77	16	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.6, Recreation Areas. Page(s): p. 2-22. Comment and Recommendations: CDFW recommends defining what exact uses are planned for the recreation area regarding angling and hunting. The reservoir is likely to attract a large contingent of migratory waterfowl, deer, dove, and turkey populations. The fluctuating water level will likely result in regions of green vegetation due to receding water, creating a potential for increased tule elk usage. CDFW recommends considering	The Authority and Reclamation are willing to work with California Department of Fish and Wildlife regarding potential opportunities for lawful public hunting at the reservoir in the recreation areas.	Reviewed by Client	None

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			coordination and use of lawful public hunting to manage increased populations.			
32000	77	17	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.1.7, New and Existing Roadways. Page(s): p. 2-23. Comment and Recommendations: The RDEIR/SDEIS states that "It is anticipated that all construction activities associated with the recreation areas would occur within the footprints of the recreation areas and the temporary and permanent access road areas" (p. 2-23). The RDEIR/SDEIS should include details on what restoration activities are planned for areas impacted by temporary access roads.	As the commentor states, temporary and existing roadway improvement are outlined in Chapter 2, Project Description and Alternatives. This includes planned construction of new and temporary roads and improvement of existing roads. Appendix 2D, Best Management Practices, Management Plans, and Technical Studies provides a list of best management practices, which includes BMP-36 for Control of Invasive Plant Species during Construction. BMP-36 states, "Upon completion of the Project, all areas subject to temporary ground disturbances will be recontoured to pre-Project elevations, as appropriate and necessary, and revegetated with native vegetation to promote restoration of the area to pre-Project or better conditions. An area subject to 'temporary' disturbance is any area that is disturbed to allow for	Reviewed by Client	None

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				construction of the Project, but is not required for operation or maintenance of any Project-related infrastructure, will not be subject to further disturbance after Project completion, and has the potential to be revegetated." Language has been added to Chapter 2 and Chapter 18, Navigation, Transportation, and Traffic, of the Final EIR/EIS regarding the restoration of temporary roads. Appendix 2D also describes the Land Management Plan, which would apply to various areas around the reservoir, including the recreation areas. The description of this plan states, "Identification and mapping of sensitive habitats and vegetation, including special-status plant populations, sensitive natural communities, wetlands, and non-wetland waters, that were avoided during construction so that signs, fencing, or other exclusion practices are implemented during operation and maintenance activities and these areas are avoided." In addition, the Recreation Management Plan, also		

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				described in Appendix 2D, would "Avoid and reduce disruption of sensitive habitats in recreation areas by: • Identifying and mapping sensitive habitats and vegetation, including special-status plant populations, sensitive natural communities, wetlands, and non-wetland waters, that were avoided during construction of recreation areas • Installing fencing, posting signage, or implementing other exclusion practices along the boundaries of sensitive habitats in the recreation areas to avoid and minimize disturbance to these habitats during operation and maintenance activities in the recreation areas." Applicable mitigation measures described in Chapter 9, Vegetation and Wetland Resources, and Chapter 10, Wildlife Resources, would apply where appropriate and would include restoration.		

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32000	77	19	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.2.1, Water Operations. Page(s): p. 2-29. Comment and Recommendations: The timing and magnitude of reservoir releases for Storage Partners along the Colusa Basin Drain (CBD), Yolo Bypass, and North Bay Aqueduct is unclear. The RDEIS/SDEIS states that reservoir releases for Storage Partners "would generally be made from May to November but could occur at any time of the year, depending on a Storage Partner's need and capacity to convey water to its intended point of delivery" (p. 2-29). However, all analyses related to flow deliveries through the Yolo Bypass were limited to the August-October time-period. CDFW recommends providing more detail about the timing and magnitude of releases for Storage Partners along the CBD, Yolo Bypass, and North Bay Aqueduct. If the timing and/or magnitude of these releases are substantially different from the proposed "habitat flows" from August-October, additional analyses on the potential impacts of moving	The majority of flows through the Yolo Bypass are anticipated to be for Proposition 1 flows, which are modeled to occur August through October, in accordance with the Sites Feasibility Study prepared for the California Water Commission. There is currently one Storage Partner who would potentially receive a relatively small delivery from the North Bay Aqueduct. There are no Storage Partners expected to take deliveries along the Colusa Basin Drain or Yolo Bypass. The EIR/EIS and modeling evaluated the anticipated flows through the Colusa Basin Drain, Yolo Bypass, and North Bay Aqueduct (e.g., Appendix 5A5, CALSIM II Model Delivery Specifications, and Appendix 11M, Yolo and Sutter Bypass Flow and Weir Spill Analysis).	Reviewed by Client	None

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			that water through the region is needed.			
32000	77	20	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.2.1, Diversion to Sites Reservoir. Page(s): p. 2-30. Comment and Recommendations: The RDEIR/SDEIS states that "up to 2,100 cfs, plus losses would be diverted at the RBPP for the Project" (p. 2-30). CDFW recommends the FEIR/FEIS explains what is meant by the term "losses" and quantifies the magnitude of these losses.	Please see Master Response 3, Hydrology and Hydrologic Modeling, for information on losses as represented by the model.	Reviewed by Client	None
32000	77	21	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.2.1, Water Operations, Bend Bridge Pulse Protection. Page(s): p. 2-31, 32. Comment and Recommendations: The RDEIR/SDEIS included a pulse protection that is flow based because real-time fish monitoring and presence-based pulse operational adjustments cannot be captured in a model. Commonly, the intention of a pulse flow protection measure is to protect pulses of fish migration rather	The Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, Fish Monitoring and Technical Studies Plan and Adaptive Management for Diversions section acknowledges the Authority will be conducting real-time fish monitoring and identifies the technical studies and monitoring required of the Project. The Authority will work with CDFW on	Reviewed by Client	None

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			than pulses of water, with flow-based pulse protection modeled as a proxy for real-time fish presence-based protection. Similarly, real-time fish monitoring and associated criteria are the norm rather than the exception for large scale diversion projects in the Sacramento-San Joaquin Delta ecosystem (CDFW 2019 State Water Project Incidental Take Permit (ITP), United States Bureau of Reclamation (USBR) 2019 Biological Assessment (BA)). CDFW supports the inclusion of pulse flow protection in the operation of the Proposed Project and anticipates working with the Authority to develop a process to implement this measure in real time based on fish presence.	implementation of pulse flow protection.		
32000	77	22	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.2.1, Diversion to Sites Reservoir. Page(s): p. 2-32. Comment and Recommendations: A ramping schedule will need to be developed to ensure that when pumping resumes upon cessation of the pulse event, flows in the river are not decreased at	The potential for near-field effects is analyzed in the RDEIR/SDEIS with best available information, indicating limited potential for effect of the Project. As noted in the Fish Monitoring and Technical Studies Plan and Adaptive Management for Diversions section of Appendix 2D, technical studies would verify the	Reviewed by Client	None

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			such a rapid rate that fish are adversely impacted.	facilities' performance during high winter flow conditions under which the Project would be diverting in the future, a situation that currently does not occur. This would be part of adaptive management for the diversions. As described in the RDEIR/SDEIS Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, technical studies will be undertaken to validate analyses conducted, refine and understand the mechanism(s) by which Project operations affect aquatic resources in high flow conditions, and explore ways in which Project operations can further benefit fish populations. Specific parameters for each technical study will be developed as part of individual study plans, with the approval of the permitting fish agencies (i.e., NMFS, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife [CDFW]). The Authority will develop a ramping schedule in consultation with agencies during the Endangered Species Act process.		

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32000	77	23	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - Section 2.5.2.1, Diversion to Sites Reservoir. Page(s): p. 2-32. Comment and Recommendations: Three Core-1 Central Valley (CV) spring-run tributaries, two Core-2 CV spring-run tributaries, 3 Core-1 CV steelhead tributaries and 2 Core-2 CV steelhead tributaries (Antelope, Mill, Deer, Big Chico, and Butte Creeks) enter the Sacramento River downstream of Red Bluff Diversion Dam (RBDD). The Adaptive Management Plan and fish monitoring program should take these into consideration and use existing or new juvenile monitoring programs to inform Proposed Project operations.	Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, describes various technical studies and adaptive management related to fish and the operation of the Project. The studies and adaptive management would be informed by existing or new juvenile monitoring programs.	Reviewed by Client	N/A
32000	77	24	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.1, Water Operations. Page(s): p. 2-35. Comment and Recommendations: The RDEIR/SDEIS states, "The Authority is currently working with Reclamation and DWR to establish operating principles with both agencies that would describe the details of the	Please see Master Response 2, Alternatives Description and Baseline, regarding coordination with SWP and CVP and the Authority's standing as a junior water right holder for Sites Reservoir. Based on current discussions between the Authority and Reclamation, as well as with California Department of Water	Reviewed by Client	No

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			coordination and collaboration that would take place during the operation of the Project" (p. 2-35). Coordinating operations between the Proposed Project, Central Valley Project (CVP), and State Water Project (SWP) is complicated and there could be unintended consequences resulting from proposed water transfers and exchanges. Little detail is provided describing coordinated operations between the three entities, which hinders the evaluation of potential impacts of the Proposed Project. The information provided suggests that there may be impacts associated with the proposed coordinated operations.	Resources, there will be accounting in the agreements. This type of accounting may be identified in the operations plan. As described in Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, the Project requires a water right and all agreements will respect existing water rights. Please also see Master Response 2, Alternatives Description and Baseline, regarding the adequacy of the impact analysis. Please see Chapter 5, Surface Water Resources, for a discussion of the Project's impacts on SWP water supplies. As described in Chapter 5, Impact HYDRO-1, "All decreases in water supply modeled for Alternatives 1, 2, and 3 are considered negligible. On average, CVP and SWP deliveries are expected to increase with Alternatives 1, 2, and 3, with greater increases expected in association with CVP participation, particularly with Alternative 3."		

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32000	77	25	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.1, Shasta Lake Exchanges. Page(s): p. 2-36. Comment and Recommendations: The critical months for cold water pool management are incorrectly listed as August through September. CDFW recommends correcting this statement in the FEIR/FEIS and any subsequent analyses to cover the critical period for cold water pool management of August through November.	The text in Chapter 2, Project Description and Alternatives, identifies this time (August and September) as "critical" and then goes on to identify the late summer and fall (i.e., August through November). The impact analysis in Chapter 11, Aquatic Biological Resources, covers the entire year and evaluates temperature over all months of presence of each life stage of each fish species, including those required for cold-water pool management.	Reviewed by Client	None
32000	77	26	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.1, Funks Creek and Stone Corral Creek Releases. Page(s): p. 2-38. Comment and Recommendations: CDFW recommends the Proposed Project consider including all perennial creeks and rivers potentially impacted in the baseline studies. CDFW requests that all baseline data (not synthesized data) be shared with CDFW.	The creeks upstream of the inundation would remain as they currently are because they would not be inundated. Stone Corral and Funks Creeks are the two existing creeks that would experience a change in flow due to the Project, as a result of either inundation or impoundment of flows. Thus, the technical studies identified in Chapter 2, Project Description and Alternatives, and described in Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, are proposed. The technical studies plan	Reviewed by Client	None

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				will be developed during the permitting and design process and will be adopted prior to land acquisition. See the following sections in Appendix 2D: Fish Assemblage and Available Habitats, Flow Characterization and Geomorphic Study, Surface Water Ambient Monitoring Program Technical Study, and Temperature Study. The Authority will provide information relevant to supporting the Stone Corral and Funks Creeks studies identified in Appendix 2D in the appendices and/or attachments to each particular study.		
32000	77	27	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.4, Reservoir Management Plan. Page(s): p. 2-43. Comment and Recommendations: CDFW recommends the development of a site-specific Aquatic Invasive Species Management Plan, coordinated with CDFW.	Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, discusses the activities to be taken for the control of aquatic invasive species in the Invasive Aquatic Plants section and the Invasive Aquatic Invertebrates section. The Authority will coordinate with California Department of Fish and Wildlife as appropriate.	Reviewed by Client	None

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32000	77	28	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.4, Reservoir Management Plan. Page(s): p. 2-43. Comment and Recommendations: CDFW recommends the development of a site-specific Fisheries Management Plan, coordinated with CDFW.	The Chapter 2, Project Description and Alternatives, Reservoir Management Plan section describes the fisheries management documentation that would be part of reservoir management. The Authority will coordinate with California Department of Fish and Wildlife as needed regarding fisheries management at the reservoir.	Reviewed by Client	None
32000	77	29	ATTMT 1. Chapter or Appendix - Section: Chapter 2 - 2.5.2.4, Recreation Management Plan. Page(s): p. 2-43. Comment and Recommendations: CDFW recommends considering hunting and firearm use, and their respective limitations or regulations, within the Recreation Management Plan. CDFW recommends considering the management and regulation of public use facilities to discourage habituation of wildlife to people.	Please see response to comment 77-16 regarding recreational opportunities in the recreation areas. Please see Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, regarding activities the Authority will take in the Land Management Plan regarding measures and practices to avoid or minimize operations and maintenance impacts on special-status wildlife, and the and Recreation Management Plan regarding managing the public in recreation areas.	Reviewed by Client	None

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32000	77	41	ATTMT 1. Chapter or Appendix - Section: Chapter 6 - Section 6.3.2.8, Harmful Algal Blooms (HABs). Page(s): p. 6-37, 38. Comment and Recommendations: The RDEIR/SDEIS takes into consideration reservoir water levels and potential effects of HABs. However, it is unclear and unlikely that the reservoir modeling conducted can evaluate whether or not HABs or toxins will be released from the reservoir. CDFW recommends the creation of a monitoring plan of phytoplankton and cyanotoxins that includes the reservoir and downstream locations.	The modeling used to inform the harmful algal blooms (HABs) impact analysis for Sites Reservoir in Chapter 6, Surface Water Quality, is related to water temperature, which informs the potential for HABs to form, in addition to qualitative consideration of nutrient levels and water residence time. Modeled water surface elevations for Alternatives 1, 2, and 3 were considered within the context of the lowest I/O tower port elevations and the low-level intake to qualitatively assess the potential for releases of potentially high concentrations of cyanobacteria and cyanotoxins from the reservoir. The environmental fate and transport of HABs in reservoir releases was also considered (e.g., dilution, biodegradation, photodegradation). Please see Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, regarding monitoring protocols and potential locations of monitoring related to water quality constituents, including HABs. Text was added indicating that water samples will be	Reviewed by Client	None

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				collected at multiple locations within the reservoir and downstream for microscopic visualization. This text revision does not change or modify the impact determinations or conclusions made in the analysis. In addition, the Authority and Reclamation have added cyanobacteria and cyanotoxin monitoring to the stream bioassessment component of the Stone Corral Creek and Funks Creek Aquatic Study Plan and Adaptive Management (Appendix 2D) to specifically address uncertainty regarding cyanobacteria and cyanotoxins in Stone Corral and Funks Creeks due to the Project. Please refer to Master Response 4, Water Quality, for a discussion regarding the use of the I/O tower to control releases of water quality constituents.		
32000	77	84	ATTMT 1. Chapter or Appendix - Section: Chapter 11 - Impact Fish-6, Appendix 11L Sturgeon Delta Analyses. Page(s): General Comment. Comment and Recommendations: Spawning success and juvenile	The correlation of flow with recruitment referred to in this comment is largely driven by a few very high flow years, as shown in the Appendix 11L, Sturgeon Analyses, figure titled White Sturgeon Year-	Reviewed by Client	None

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			recruitment are poorly understood for both species of sturgeon due to the difficulty of monitoring the benthic, dispersed, and cryptic early life stages of these fishes. The best available evidence indicates that white sturgeon only have large, successful recruitment events approximately every 8-10 years, correlated with wet water years, especially those associated with high spring outflow (Fish 2010; Stevens and Miller 1970). It appears that green sturgeon show a similar pattern. Reports from the USFWS Red Bluff office show green sturgeon eggs captured on egg mats and larvae captured in both rotary screw traps and benthic D-nets show high numbers in wet years with high water levels (B. Poytress, USFWS, personal communication). Operations of Proposed Project that reduce flows during wet and above normal years, during the periods of egg development, larval rearing, and juvenile migration carry a strong risk of harming those early life stages and reducing these rare successful recruitment years. To minimize these	Class Index (YCI) for 1980–2011 as function of Mean April–May Delta Outflow (Upper Panel) and Mean March–July Delta Outflow (Lower Panel) in Cubic Feet Per Second (cfs). Such flows are largely unimpaired flows that result from major storm events and are not much affected by Project operations. Given differences in life cycle and habitat use between green sturgeon and white sturgeon, the applicability of the white sturgeon YCI to green sturgeon is unclear. However, larval abundance and distribution may be influenced by spring and summer outflow. There appears to be a positive relationship between spring and summer outflow of wet water years and larval abundance in the RBDD rotary screw trap data (Heublein et al. 2017, discussed in Appendix 11A). The effects of the Project operations on flow in the Sacramento River under the No Project Alternative and the Project alternatives are discussed in Chapter 11. In particular, the differences in flow between the No		

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			potential impacts, Proposed Project operations should time reservoir inflow so that it does not meaningfully reduce flows in the Sacramento River during critical sturgeon rearing and migration, especially during the wettest years. Additionally, monitoring of early life stage abundance or YCI should be funded through the Proposed Project in order observe the effects of Proposed Project operations on sturgeon and inform adaptive management of Proposed Project operations, as necessary.	Project Alternative and each of the alternatives are presented by month and water year type at four locations in the Sacramento River: Bend Bridge, RBDD, GCID, and Wilkins Slough in tables 11-57 through 11-60. These locations are representative of the portion of the Sacramento River in which larval and juvenile green sturgeon rear for several months post hatching before migrating to the delta. Generally, the differences between flow under the No Project Alternative and the alternatives are small, less the 5%; however, there are some exceptions. The only reduction in flow greater than 5%in a wet year is a reduction in flow in April at Hamilton City under Alternative 3 from 16,312 cfs (No Project Alternative/No Action Alternative) to 15,441 cfs (5.3%, Alternative 3). Given this is the only wet year reduction greater than 5% and the remaining flow is still relatively high, the effect on green sturgeon larval production is anticipated to be minimal.		

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				There are reductions in flow greater than 5%in other months and water-year types. Flow at RBDD for all alternatives in January, February, and March may see reductions between 5.3% and 8.1%. Except for March, these reductions do not persist downstream at Hamilton City or Wilkins Slough. Given that only migratory/pre-spawning adults are present in these reaches during these months, the flow reductions are not expected to have an adverse effect on juvenile production and survival. Potential effects of these flow reductions on migratory green sturgeon and white sturgeon adults are discussed in Chapter 11. Alternative 3 is estimated to reduce flows by greater than 5% in May of critically dry years and June of above normal, below normal, and critically dry years. Juvenile production does not appear to be associated with below normal and critically dry water years, and none of the reductions persist in the estimated effects at GCID and Wilkins Slough. Therefore, the effect of those reductions is		

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				expected to be localized with minimal effect on habitat for juvenile rearing. Finally, the pulse protection measures in the Project, and the Wilkins Slough requirement, which precludes diversions if they would reduce flow at Wilkins Slough below 10,700 cfs, are likely to ensure sufficient flows for adult green sturgeons to complete their spawning migrations and ensure pulse flows are available to stimulate downstream migration of larval and juvenile green sturgeon. Therefore, the impact of the Project to green sturgeon was determined to be less than significant (CEQA) and no adverse effect (NEPA). Please see Impact FISH-6, Operations Effects on Green Sturgeon, in Chapter 11. The Authority and Reclamation recognize the uncertainty in these determinations attributable to the paucity of information on green sturgeon life history and habitat use and are committed to support, collaborate with, and as appropriate augment ongoing research directed at improving understanding of the		

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				flow-survival relationship in the middle reach of the Sacramento River (Red Bluff Diversion Dam to Verona), including the roles of pulses, base flows, sediment levels, predation, and inundated acres of side-channel habitat, and to use the results to refine the criteria for managing diversions to protect the function of the Sacramento River between RBDD and Verona to support migration and rearing of juvenile salmon and sturgeon (See Appendix 2D.6.4).		
32000	77	109	ATTMT 1. Chapter or Appendix - Section: Chapter 28 - Section 28.4.1.3, Sites Reservoir Operation. Page(s): General Comment. Comment and Recommendations: The modeling conducted in the RDEIR/SDEIS compares both with and without climate change future scenarios for all alternatives. The results from the analyses were then used to qualitatively assess the impacts and benefits that the Proposed Project might have with climate change. The RDEIR/SDEIS states that overall, it is not expected to have adverse effects	The description of Project operations has been refined as described in Master Response 2, Alternatives Description and Baseline. The refinements include modification to the minimum Wilkins Slough flow criteria, which now require that diversions to Sites Reservoir may not cause flow at Wilkins Slough to decline below 10,700 cubic feet per second (cfs) from October 1 to June 14. The revised standard is modeled throughout the Final EIR/EIS and included in the modeling results in Chapter 28, Climate Change.	Ready for author review	N/A

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			on aquatic species under climate change (p.28-29). However, analyses in the RDEIR/SDEIS demonstrate that the Proposed Project operations will have an adverse impact on aquatic species and results from the climate modeling indicate the Proposed Project under climate change would likely exacerbate these adverse impacts. For example, the RDEIR/SDEIS states that it "would result in larger reductions to flow under climate change in Critically Dry Water Years from December to March and larger increases in August to make up for the significantly decreased flow" (p. 28-16). A reduction in flow in the months of December to March, particularly in critically dry years, which are predicted to increase under climate change, would have adverse effects on rearing and emigrating salmonids. Likewise, the RDEIR/SDEIS's analysis indicates that Delta outflow decreases with climate change, which could further exacerbate impacts to longfin smelt. CDFW recommends establishing more protective bypass	Therefore, the Authority and Reclamation have established more protective bypass flow criteria, as recommended by the commenter. In addition, the Authority will consider climate change in the context of operations and the Project objectives through the implementation of an adaptive management plan, as suggested by the commenter. Text in Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, has been revised accordingly. The text indicated by the commenter in the Aquatic Biological Resources subsection (formerly on page 28-29) discusses the Project impacts disclosed in Chapter 11, Aquatic Biological Resources, not potential effects under climate change. The Chapter 28 text has been revised to describe the results presented in Table 28-13, Sacramento River Flow near Wilkins Slough: Alternatives Compared with [No Project] (a) without Future Climate Change in 2035, (b) with Climate Change in 2035		

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			flow criteria and include in the Proposed Project's adaptive management plan strategies to address how the Proposed Project may alter future operations to account for the potential adverse effects of climate change.	and (c) with Climate Change in 2070 (c)— Critically Dry Years. The revisions describe the Project-related actions under climate change that contribute to the modeled results. In Critically Dry Water Years (e.g., 2015), water for diversion to Sites Reservoir is likely to be unavailable. The results seen in the Table 28-13 are primarily attributable to exchanges between Shasta Lake and Sites Reservoir to conserve cold-water pool for temperature control in late summer and fall months. Reclamation may decide to work with the Authority to provide additional temperature control in the upper Sacramento River. Reclamation could deliver water from Sites Reservoir in exchange for conserving cold water in Shasta Lake for temperature management. Under this Project-driven condition, flows upstream of Knights Landing would be reduced. The Project is required to and will comply with existing standards for the Sacramento River. Water temperatures in the Sacramento River are and will continue to be managed through water releases from Shasta		

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				and Keswick Dams in accordance with the State Water Resources Control Board water rights and water quality criteria related to the CVP and SWP operations under the Project, as well as relevant biological opinions. Reclamation's decision to provide additional temperature control through the use of Shasta Lake under Project conditions is currently and would continue to be required to be made in consultation with Reclamation's existing temperature task group and be subject to approval by the Central Valley Regional Water Quality Control Board, pursuant to Water Rights Order 90-5. The existing minimum bypass flows in the Sacramento River will remain unchanged under the Project (3,250 cfs at the Red Bluff Diversion Dam and 4,000 cfs downstream at the Hamilton City Pump Station). Please see Master Response 5, Aquatic Biological Resources, regarding baseline and specials-status species, project benefits to fisheries, and flow-		

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				related effects on longfin smelt and delta smelt.		
32000	78	10	Evaluation of the Effects of the Project The environmental document should fully describe how the Project is proposed to be integrated with other major existing and planned water infrastructure projects, many of which involve participants in the Sites project, including planned operations and accounting for those operations. The lack of explanation of how these projects would work together prevents a full understanding of the project. Further, the environmental document relies on the development of future plans to mitigate impacts of the project on water quality and fish and wildlife. The major details of these plans are needed in order to fully evaluate the effectiveness of these mitigation measures and the full impacts of the project.	The cumulative impact analysis in Chapter 31, Cumulative Impacts, provides a qualitative analysis of how the Project would interact with other water infrastructure projects. In addition, the modeling incorporates exchanges and diversion criteria to represent the integration of the Project with the CVP and SWP systems. Please also see Master Response 2, Alternatives Description and Baseline, regarding coordination with CVP and SWP and disclosure of impacts. The Project's impacts to water quality, fish and wildlife are described in Chapter 6, Surface Water Quality, Chapter 11, Aquatic Biological Resources, and Chapter 10, Wildlife Resources. Please see Master Response 4, Water Quality, Master Resource 5, Aquatic Resources, and Master Response 6, Vegetation, Wetland, and Wildlife Resources for	Reviewed by Client	None

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				additional information regarding the modeling analysis in the EIR/EIS. The plans identified in Chapter 2, Project Description and Alternatives, and Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, are part of the Project. These plans will be used to inform the operation of the Project and therefore are analyzed in the EIR/EIS. Specific mitigation measures are also identified in the EIR/EIS to reduce impacts.		
32000	78	29	Page 1-7 - The environmental document should identify and evaluate alternative operational criteria for the project that avoid additional modification of baseline flows in most water years to protect the aquatic ecosystem and fish populations in the Bay-Delta Watershed and to demonstrate proposed project feasibility taking into consideration possible updates to flow-dependent water quality objectives in the Bay-Delta Plan. Water diversions through	The Authority and Reclamation considered multiple operational scenarios over the course of the Project development that were designed to meet the Project objectives, purpose, and need; enhance Project benefits; and reduce or avoid impacts. The features of alternatives, including Sites Reservoir capacity, conveyance systems, and operational scenarios, were conceptually developed and refined over time to maximize the achievement of the objectives. Please	Reviewed by Client	None

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			infrastructure such as dams, reservoirs, and distribution facilities (canals, pumps, pipelines) have substantially modified the volume, timing, frequency, rate, and duration of river flows and these modifications are primary contributors to the decline, persistent low abundance, and high extinction risk for multiple native fish species and other aquatic organisms in the Bay-Delta watershed. A significant amount of scientific information indicates that existing river flows, Delta outflows, and interior Delta flows (baseline flows) are not sufficient for halting and reversing declines of multiple fish populations in the Bay-Delta watershed. Additional surface storage, conveyance, and operational flexibility in the Proposed Project allows for greater impairment of baseline flows (volume, timing, frequency, rate, and duration) in the Bay-Delta watershed and allows for increases in adverse impacts on depleted fish populations and other aquatic organisms. Modifications to the baseline hydrograph, volume, timing,	see Master Response 9, Alternatives Development, regarding operational criteria development. Please see Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, for information regarding the Bay-Delta Plan Updates and Master Response 2, Alternatives Description and Baseline, regarding what is included in the baseline. The environmental baseline includes the operations of the existing reservoir and the existing flows in the existing rivers and compares these conditions to conditions expected under Project operations. For example, in Chapter 11, Aquatic Biological Resources, Impacts FISH-2 through FISH-11 describe the relative changes between environmental baseline and Alternatives 1 through 3. Please also refer to Master Response 5, Aquatic Biological Resources, regarding the environmental baseline and special-status species.		

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			frequency, rate, and duration) in the riverine and tidal portions of the Bay-Delta watershed and subsequent impacts to ecological resources including fish populations should be estimated and disclosed in the context of changes from baseline and unimpaired flow conditions. Given the potential for additional degradation of baseline flows associated with the Proposed Project, and the relationship between flows and fish population viability, operational alternatives that avoid loss of baseline flows in most water years are needed to assess the feasibility of mitigating ecological and fishery impacts in the context of anticipated updates to the Bay-Delta Plan and to produce a record in support of multiple Board decisions. [Commenting Water Board or Section within the State Water Board: Bay-Delta]			
32000	78	30	Chapter 2 indicates that a benefit of the Sites Project is exchanges in releases from Shasta and Folsom for cold water pool maintenance and	Please refer to Master Response 5, Aquatic Biological Resources, for additional discussion of benefits to aquatic biological resources, including	Reviewed by Client	N/A

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			other environmental needs. However, the CalSim and HEC5Q modeling does not show noticeable benefits of such exchanges. Any assertions of cold water pool benefits should be supported with quantitative results that demonstrate such benefits. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	the benefits to the cold-water pool. As discussed in Master Response 5, improved cold-water pool conditions under Alternatives 1, 2, and 3 allow for lower water temperatures relative to the No Project Alternative in drier years during summer months, which coincides with winter-run spawning, egg incubation, and alevin development. As a result, reduced temperature-dependent winter-run egg mortality under Alternatives 1, 2, and 3 was found in Martin and Anderson egg mortality models, SALMOD, and IOS winter-run life cycle model in drier years.		
32000	78	31	Page 2-29 - The Project proposes to divert water during times that Shasta Reservoir should be minimizing loss of storage or gaining storage for temperature management during the summer and fall. The environmental document should include proposed operating constraints specifically designed to avoid impacts to Shasta and Trinity River storage, temperature management, and impacts to salmonid redd dewatering and	In coordination with Reclamation, the Authority would construct, operate, and maintain an offstream reservoir to capture excess water from major storms and store the water until it is most needed during dry periods. Please see Master Response 3, Hydrology and Hydrologic Modeling, which describes the modifications to modeling in the Final EIR/EIS for Shasta Lake Operations and the resulting benefits to cold-water pool	Reviewed by Client	None

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			stranding associated with these operations. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	management, fall flow stability, and spring pulse flow actions that would occur under the Authority's and Reclamation's preferred alternative. Also, please see Master Response 2, Alternatives Description and Baseline, regarding diversions and operational criteria that have been refined in response to comments and agency coordination. Please see Master Response 8, Trinity River, regarding the scope of analysis related to the Trinity River system and how effects would not occur on the Trinity River. The Project is not proposing to modify, change, remove, or add to any of these factors. Regardless of the Project, Reclamation would continue to operate the CVP Trinity River Division facilities consistent with all applicable statutory, legal, and contractual obligations, including but not limited to Reclamation's Trinity River water rights, 2000 Trinity River ROD, and Lower Klamath ROD and the provisions of the Trinity River Division CVP Act of 1955.		

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32000	78	32	Page 2-29 - More details should be provided about the timing and magnitude of releases for specific Storage Partners and the route that water would be conveyed to ensure that possible impacts associated with these issues can be fully evaluated and disclosed. In addition, the total quantity of diversions, including losses, should be identified and evaluated. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	Storage Partner deliveries are described in the RDEIR/SDEIS by subgroups, such as north-of-Delta and south-of-Delta deliveries. Each subgroup has similar hydrologic and environmental effects. Chapter 5, Surface Water Resources, contains a summary of water supply deliveries in the Summary of Water Supply Delivery Results section. This section includes deliveries to storage partners north and south of the Delta and to refuges. Storage Partner deliveries are also presented in Chapter 32, Other Required Analyses. Chapter 32 tables titled Summary of Simulated Sites Reservoir Annual Averages of Agricultural Deliveries (Thousand Acre Feet/Year) and Sites Reservoir Agricultural Deliveries Compared to Total Agricultural Deliveries break down Sites Reservoir deliveries for agriculture by Sacramento, San Joaquin/Tulare Lake, and San Francisco Bay hydrologic regions. Chapter 32 tables titled Summary of Simulated Sites Reservoir Annual Averages of Municipal and	Reviewed by Client	None

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				Industrial Deliveries (Thousand Acre Feet/Year) and Simulated Sites Reservoir Municipal and Industrial Deliveries Compared to Total Municipal and Industrial Deliveries break down Sites Reservoir deliveries for municipal and industrial purposes by San Francisco Bay, South Lahontan, and South Coast hydrologic regions. Additional information about deliveries is provided in Appendix 5B5, Water Supply. Chapter 5 provides a summary of the hydrologic modeling results, including diversions at Red Bluff (table titled Simulated Sacramento River Diversion at Red Bluff: No Project Alternative (cfs) and Change in cfs between No Project and Alternatives 1, 2, and 3 (cfs, Not Percent Change)), diversions at Hamilton City (table titled Simulated Hamilton City Diversion: No Project Alternative (cfs) and Change in cfs between No Project and Alternatives 1, 2, and 3 (cfs, Not Percent Change)), and releases at Sites Reservoir (table titled Simulated Sites Reservoir Release for All		

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				Alternatives (cfs)). The Sites Reservoir releases are broken down into releases to the Sacramento River (Chapter 5 table titled Simulated Sites Reservoir Release to Sacramento River (Release to Dunnigan Pipeline minus Release to Yolo Bypass) for All Alternatives (cfs)) and Yolo Bypass (Chapter 5 table titled Simulated Sites Reservoir Release to Yolo Bypass for All Alternatives (cfs)). Appendix 5B1, Project Operations, includes extensive CALSIM results for Sites Reservoir operations, including total Sites Reservoir diversions. Please refer to Master Response 3, Hydrology and Hydrologic Modeling, for a discussion of losses. Effects associated with these changes in hydrology and water supply are evaluated throughout the document.		
32000	78	33	Page 2-29 - The environmental document states that the Authority intends to apply for and obtain a water right permit from the State Water Board for operations of the Project and that actual operations will	Please see Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, regarding water rights. The Authority is seeking a water right from the State Water Resources	Reviewed by Client	N/A

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			depend upon the terms and conditions of the water right permit. As discussed above, in order to inform the State Water Board's decision making on appropriate operational constraints for the project, a reasonable range of operational constraints should be evaluated in the environmental document and the public should be given the opportunity to review and comment on those analyses before the environmental document is finalized. Specifically, a range of operations that include criteria that provide additional protection for fish and wildlife should be evaluated, including Sacramento River and Delta outflow bypass flows. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	Control Board. The analysis in the EIR/EIS is comprehensive and descriptive of the effects of the Project. Modifications to the Project during the permitting process, including the water rights process, could result in stricter diversion criteria and thus a lower level of effects than analyzed in the EIR/EIS. Please see Master Response 9, Alternatives Development, regarding the reasonable range of feasible alternatives.		
32000	78	34	Page 2-30 - The proposed Project states that "Sites Reservoir would be filled through the diversion of Sacramento River water that generally originates from unregulated tributaries to the Sacramento River	Please see Master Response 1, CEQA and NEPA Process, Regulatory Requirements, and General Comments, regarding water rights and water availability and Master Response 3, Hydrology and	Reviewed by Client	None

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			downstream from Keswick Dam. A limited volume of the diversions to Sites Reservoir would come from flood releases from Shasta Lake." The draft REIR/SEIS should be revised to include discussion as to how water targeted for diversion by the Project will generally be limited to water generated in the watershed below Keswick Dam. In the limited circumstances where flood releases from Shasta Lake of water originating above Keswick Dam will be relied upon, the draft REIR/SEIS should be revised to clearly define what constitutes "flood releases" and should explain how flood releases will be tracked to ensure the Project is diverting only "flood releases" to the extent it diverts water that originates above Keswick Dam. Additionally, even if a limited volume of water comes from flood releases, please note that the entire watershed from the lowest proposed point of diversion (Hamilton City) upstream should be considered when	Hydrologic Modeling, regarding the modeled representation of diversions. Diversions would take place when there is more water in the system than needed to meet all instream flow requirements, Delta objectives, and existing water-right obligations. The water diverted may come from either local runoff downstream of Shasta Lake or from Shasta Lake flood control releases. Flood control releases are part of Reclamation's flood operations for Shasta Lake. Other releases from Shasta Lake are made for specific purposes. The determination of when there is water available for diversion to Sites Reservoir storage is made within the CALSIM modeling. During real-time operations, Reclamation tracks whether releases from Shasta Lake are made for downstream purposes or for flood control purposes. Water released for downstream purposes would not be available for diversion to Sites Reservoir storage and is represented as such in the modeling.		

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			evaluating water availability, as well as downstream instream flow needs. [Commenting Water Board or Section within the State Water Board: PERMITTING AND SECTION]			
32000	78	35	Pages 2-31, 32 - The Bend Bridge Pulse Protection specifies criteria for qualified pulse flow events that would occur during October through May for the protection of migrating juvenile salmonids. For these criteria, the fish pulse protection is flow-based to simulate the effect of pulse flows on fish migration. The draft REIR/SEIS should identify fish pulse protection criteria and associated modeling rules to simulate implementation. If fish pulse protection criteria are based solely on real-time fish monitoring, flow-based modeling may overestimate actual river flows, which may be lower due to real-time decision making by water resource managers and advice from technical working groups. Pulse protection criteria should incorporate options for flow-based pulses to trigger	The pulse flow protection measure is not a simulation and is a measure to ensure pulses are protected so that fish may respond to the migration signals they provide. The pulse flow protection measure is also to ensure exposure of fish moving in response to these pulses to diversions is minimized. The pulse protection criteria have been modified to address the potential for missing the initial pulse and are no longer based solely on fish monitoring, as described in Chapter 2, Project Description and Alternatives, of the Final EIR/EIS. The criteria will consider predictions of storm-generated pulse events from the California Nevada River Forecasting Center. To address uncertainties in the forecasts, the criteria include monitoring of fish movement and real-time monitoring	Reviewed by Client	Already in EIR/EIS Chap.2: Poytress, W. R., J. J. Gruber, F. D. Carrillo, and S. D. Voss. 2014. Compendium Report of Red Bluff Diversion Dam Rotary Trap Juvenile Anadromous Fish Production Indices for Years 2002–2012. U.S. Fish and Wildlife Service. Red Bluff Fish and Wildlife Office, CA. 151 pp.

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			migration and pulse flows in response to real-time fish monitoring information. Identifying these criteria will allow modeling to more accurately reflect flow conditions resulting from pulse protection. The pulse flow event is defined as 3-day trailing averages at the Sacramento River at Bend Bridge and tributary flows. A 3-day "trailing" average has the potential to miss the initial "pulse", i.e., within the first three days of a precipitation event, of flow and fish migration. Alternative methods should be considered to protect the initial pulses of flow and migrating fish, such as using the California Nevada River Forecasting Center daily river forecast and/or fish monitoring data. The second bullet item describes a qualified pulse event as the 3-day trailing average flows at Bend Bridge (Sacramento River) flow greater than 8,000 cfs "and" tributary flow upstream exceeding 2,500 cfs. The inclusion of the conjunction "and" indicates that the pulse flow criteria for both the Sacramento River and tributaries must be met for a pulse	of flow at Bend Bridge. If a pulse is predicted, operators will be prepared to cease diversions if/when a signal is observed in real-time monitoring of gage data at Bend Bridge that verifies the prediction. Fish movement will also be monitored for a signal that the fish are moving and protections should be implemented. While the importance to the first storm event of the season for stimulating fish movement is generally accepted (e.g., Poytress et al. 2014), the causal mechanisms are not fully documented and the modeling suggested in the comment is not likely to be informative. The utility of fish movement as a trigger will be evaluated through the implementation of the adaptive management program and subject to modification to ensure the pulse protection criteria achieve the intended purpose.		

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			protection to be initiated. In order to protect migrating fish from both the mainstem Sacramento River and the tributaries, however, pulse flow criteria should be established separately for the mainstem Sacramento River and the tributaries. In addition, the draft REIR/SEIS should explicitly state whether the tributary flow of 2,500 cfs criteria represents the combined flows for the three tributaries (Cow, Cottonwood, and Battle creeks) or for an individual tributary. [Commenting Water Board or Section within the State Water Board: Bay-Delta]			
32000	78	36	Page 2-33 - The minimum bypass flow in the Sacramento River at RBPP is proposed to be 3,250 cfs. The draft REIR/SEIS states that when the Sacramento River flows exceed 3,250 cfs at RBPP that diversions would occur "until the full 2,100 cfs diversion could be achieved at flows of approximately 7,860 cfs." Diversion at this rate represents about 27% of	Although the minimum bypass flow is 3,250 cubic feet per second (cfs), there are many reasons higher flows may be protected from diversions to Sites Reservoir storage. As described in Chapter 2, Project Description and Alternatives, flows past Red Bluff may need to be higher than 3,250 cfs for pulse flow protection, flow requirements at Hamilton City, and	Reviewed by Client	None

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			Sacramento River flows. Further, Figure 2-36 shows that any, and all, flows above the minimum bypass flows (3,250 cfs) will be diverted until the diversion rate reaches 1,801 cfs at the Sacramento River flow of 5,050 cfs, which represents a diversion of approximately 36%. A full analysis should be provided of the potential impacts of diverting over a third of the flow of the Sacramento River, including an analysis for all months and water year types, as well as possible shorter term impacts on rearing and migration of salmon and other native fishes. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	Delta requirements. The Project would operate in a manner that would not adversely affect the ability of others to meet all applicable laws, regulations, biological opinions and incidental take permits, and court orders in place at the time that diversion occurs. Flow in the Sacramento River below the RBPP is expected to decrease by no more than 7% in Critical Dry Water Years and no more than 4% in Wet Water Years. Please see Chapter 5, Surface Water Resources, for the simulated diversions from the Sacramento River by month. The effects of diverting Sacramento River water to Sites Reservoir storage are evaluated throughout the RDEIR/SDEIS. Effects on aquatic biological resources are evaluated in Chapter 11, Aquatic Biological Resources. Evaluations related to rearing and migration of salmon and other native species are provided throughout Chapter 11 and its appendices. The most pertinent sections in Chapter 11 are the following subsections under the section Far-Field Effects: Flow-Related		

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				Physical Habitat Conditions, Floodplain Inundation and Access, and Migration Flow Survival. The evaluations in these sections encompass all months and locations for which a species and life stage may be present. Also, potential effects under all water year types are considered. Changes that occur over time-steps shorter than monthly intervals were generally not evaluated because, in most cases, effects of such short-term effects were expected to be adequately captured in the monthly time-step results. The models for most evaluations are based on CALSIM II outputs, which have a monthly time-step. For evaluation in which shorter-term impacts were considered potentially important, including redd dewatering, juvenile stranding, and water temperature, daily time-step modeling was used.		
32000	78	37	Page 2-33 - The proposed minimum bypass flow in the Sacramento River at Hamilton City Pumping Station is 4,000 cfs. The draft REIR/SEIS states that when the Sacramento River flows	The commenter's example of 31% of river flow diverted represents a maximum value of a single diversion criterion. Table 11-7 presents monthly average total diversions (GCID and	Reviewed by Client	N/A

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			exceed 4,000 cfs at Hamilton City Pumping Station that diversions would occur "until the full 1,800 cfs diversion could be achieved at flows of about 5,800 cfs." The diversion at this rate represents about 31% of Sacramento River flows. Further, Figure 2-27 shows that any, and all, flows higher than the minimum bypass flows (4,000 cfs) will be diverted until the diversion rate reaches 1,800 cfs. An analysis of the impact of these high rates of diversion compared to the Sacramento River flow at Hamilton City Pumping Station has not been provided in the draft REIR/SEIS. Table 11-7 only provides the percentages of diversion at Hamilton City Pumping Station up to 24% or 25%. (June of Wet years, May and June of Below Normal, Dry, and Critical years). This issue needs further clarification. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	Sites diversions) at Hamilton City by water year type. Flow in the Sacramento River downstream of Hamilton City is expected to decrease by no more than 6% in Critical Dry Water Years and no more than 3% in Wet Water Years. Please see Chapter 5, Surface Water Resources, for the simulated diversions from the Sacramento River by month. Several diversion criteria (in addition to minimum bypass flow in the Sacramento River at Hamilton City) must be met before Sites may divert. These additional diversion criteria are summarized in the table titled Summary of Project Diversion Criteria in Chapter 2, Project Description and Alternatives. The impacts of these combined diversion criteria and the changes in hydrology expected to occur as a result of the Project are analyzed throughout the report. See response to comment 78-36 for description of sections in Chapter 11 that contain evaluations of flow-related effects. Changes to river flow are detailed in Appendix 5B2, River Operations. This appendix includes		

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				tables, monthly pattern plots and exceedance plots of reservoir storage, reservoir elevation, and river flow for each alternative. In addition, please see Master Response 2, Alternatives Description and Baseline, regarding refinements to Project operations, which include an increase in the Wilkins Slough flow criteria as part of the Project. Please note, too, that the figure titled Available Diversion Capacity versus Streamflow at the GCID Hamilton City Pump Station in Chapter 2, Project Description and Alternatives, shows the available diversion capacity at the GCID Hamilton City Pump Station and is intended to show that the rate of diversion at the Hamilton City Pump Station would be controlled by and scaled to the fish screen design.		
32000	78	38	Page 2-33 - The Hamilton City Pump Station is located at an oxbow channel away from the mainstem Sacramento River, thus experiences different hydraulic conditions. Diversion criteria at Bay-Delta the Hamilton City Pump Station should	The impact analysis in Chapter 11, Aquatic Biological Resources, describes the physical conditions (i.e., the oxbow channel) with respect to the potential effects on entrainment or impingement. The diversion criteria take into account the physical	Reviewed by Client	Vogel, D. A. 2008. Biological Evaluations of the Fish Screens at the Glenn–Colusa Irrigation District's Sacramento River

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			take into account additional bypass flow needs for an oxbow channel needed to protect fish species. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	conditions of the river and the operation of the diversion. As described in the Chapter 2, Project Description and Alternatives, Sacramento River Diversion and Conveyance to Regulating Reservoirs section, the fish screens at both facilities meet National Marine Fisheries Service and California Department of Fish and Wildlife criteria. These criteria include sweeping velocity, among other criteria. Note that the Hamilton City intake was subject to study and redesign as part of an earlier Fish Screen Improvement Project, part of which was construction of a rock training wall to enhance sweeping velocity past the screen (Vogel 2008:1).		Pump Station: 2002–2007. Natural Resource Scientists, Inc., Red Bluff, CA
32000	78	39	Page 2-33 - The operational criteria should identify ramping rates for diversions appropriate to protect native fish species that may be residing near or migrating past diversion facilities.	The Authority will develop a ramping schedule in consultation with agencies during the Endangered Species Act process.	Reviewed by Client	N/A

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			[Commenting Water Board or Section within the State Water Board: Bay-Delta]			
32000	78	40	Page 2-36 - The environmental document states that the critical months for cold water pool management are August through September. Cold water pool protection is important year-round and most important from April through November to protect winter-run, springrun, and fall-run Chinook salmon. High releases throughout this period reduce cold water supplies available later in the year. Cold water is needed throughout this period until ambient temperatures cool in the fall. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	The text in Chapter 2, Project Description and Alternatives, identifies this time (August and September) as "critical" and then goes on to identify the late summer and fall (i.e., August through November). The impact analysis in Chapter 11, Aquatic Biological Resources, covers the entire year and evaluates temperature over all months of presence of each life stage of each fish species, including those required for cold-water pool management.	Reviewed by Client	N/A
32000	78	41	Page 2-36 - The Project is proposing the use of "exchanges" of Sites water in-lieu of releases from Central Valley Project (CVP) and State Water Project (SWP) reservoirs. The draft REIR/SEIS is unclear as to how these	Please see Master Response 2, Alternatives Description and Baseline, regarding coordination with CVP and SWP, exchanges, and tracking water. As noted in Master Response 2, exchanges of water may occur with	Reviewed by Client	N/A

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			"exchanges" are coordinated between the proposed project and the CVP and SWP operators, and it does not specify how water being "exchanged" will be adequately tracked to ensure that these "exchanges" are reported adequately under a valid basis of right. Additional information should be added to better describe the "exchanges" that would occur with entities downstream from Sites Reservoir. Specifically, coordinated operations between the Proposed Project, CVP, and SWP should be identified in order to accurately simulate changes to river flows and water supplies throughout the watershed. [Commenting Water Board or Section within the State Water Board: Permitting and Section]	the Central Valley Project (CVP) and State Water Project (SWP) reservoirs, including Shasta Lake and Lake Oroville. Exchanges would only be conducted when they would be neutral or net beneficial to CVP and SWP operations and not affect the ability of the CVP or SWP to meet applicable laws, regulations, BiOps and ITPs, contractual deliveries, and court orders in place at the time.		
32000	78	53	The draft REIR/SEIS indicates that Funks Creek and Stone Corral Creek will be managed for flood purposes only and no water from any local drainages that will be inundated by Sites Reservoir will be collected in	Gauging stream inputs would be potentially inaccurate as the watershed surrounding the reservoir is large, and there are many pathways where water flows into it that would not be gaugeable (e.g., seeps,	Reviewed by Client	None

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			Sites Reservoir for diversion and use. The draft REIR/SEIS should include discussion as to how water entering Sites Reservoir from the local drainages will be monitored, recorded, and timely released through Sites Reservoir. [Commenting Water Board or Section within the State Water Board: Permitting and Section]	overland flow, small seasonal washes). As described in Chapter 2, Project Description and Alternatives, flow would be timed and released into Stone Corral and Funks Creeks in coordination with field studies and the resource agencies.		
32000	78	57	Ch 5 - A detailed discussion about the accounting of water diverted and released is needed. Ideally this accounting would be publicly available in real-time. [Commenting Water Board or Section within the State Water Board: Bay-Delta]	Diversions at Red Bluff and Hamilton City are already metered and reported. Metering of releases from Sites Reservoir is anticipated and would be reported.	Reviewed by Client	None
32000	79	3	The EPA is concerned about the approach to project operations in the SDEIS, which have not yet been finalized but are critical to understanding the environmental impacts of Sites Reservoir. Operations are modeled using historical hydrology data that may not reflect	The RDEIR/SDEIS and Final EIR/EIS use existing conditions in 2020 to define the environmental baseline. This 2020 environmental baseline reflects a range of historical hydrologic conditions (e.g., watershed runoff); current physical conditions (e.g., dams); current regulatory operating	Reviewed by Client	None

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			current and future conditions, and diversion criteria are based on regulatory requirements that are currently being revised.	conditions of the CVP and the SWP; the water rights orders and decisions and water quality criteria from the State Water Resources Control Board (State Water Board); current municipal, environmental, and agricultural water uses; current land uses; and relevant current laws, regulations, plans, and policies. Several adjustments were made in the CALSIM II modeling between the RDEIR/SDEIS and the Final EIR/EIS to allow use of the most up-to-date modeling procedures and be representative of real-time operations. Please see Master Response 2, Alternatives Description and Baseline, and Master Response 3, Hydrology and Hydrologic Modeling, for information regarding the level of detail provided in the alternatives description and the modeled representation of the alternatives. Please also see Master Response 3 regarding the use of historical hydrologic data and the representation of existing regulatory requirements.		

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32000	79	7	Appropriate testing procedures and plans for sediment management and beneficial reuse have not been specified.	Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, provides a description of BMP-11, Management of Dredged Material, which identifies procedures for testing, containment, reuse, and disposal. Depending on the chemical composition of the sediment, beneficial use may be appropriate. Material not suitable for reuse will be disposed of at a permitted landfill site. Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, also provides a description of other measures to manage sediment: BMP-12: Development and Implementation of Stormwater Pollution Prevention Plan(s) (SWPPP) and Obtainment of Coverage under Stormwater Construction General Permit (Stormwater and Non-stormwater) (Water Quality Order No. 200922-000957-DWQ/ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No.	Reviewed by Client	None

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				2012-0006-DWQ, and any amendments thereto), BMP-14: Obtainment of Permit Coverage and Compliance with Requirements of Central Valley Regional Water Quality Control Board Order R5-2022-0006 (NPDES No. CAG995002 for Limited Threat Discharges to Surface Water) and State Water Resource Control Board Order 2003-0003-003-DWQ (Statewide General Waste Discharge Requirements For Discharges To Land With A Low Threat To Water Quality)		
32000	79	13	Operations Modeling and Diversion Criteria As noted in our [EPA] 2018 comment letter on the Draft EIS, important components of the Sites Project remain undefined pending outcomes of state funding processes, such as the California Proposition 1 Water Storage Investment Program, including a final Operations Plan. While the impacts of constructing the reservoir are significant, a thorough	Please see response to comment 79-3 regarding the environmental baseline and the adjustments made in the CALSIM II modeling between the RDEIR/SDEIS and the Final EIR/EIS. The Authority and Reclamation considered multiple operational scenarios over the course of the Project development that were designed to meet the Project objectives, purpose, and need; enhance Project benefits; and reduce or avoid impacts. The features of	Reviewed by Client	None

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			description of project operations is critical to guiding the environmental analysis presented in the SDEIS, as well as guiding other federal and state permit decisions.	alternatives, including Sites Reservoir capacity, conveyance systems, and operational scenarios, were conceptually developed and refined over time to maximize the achievement of the objectives. Please see Master Response 9, Alternatives Development, regarding operational criteria development, and Master Response 2, Alternatives Description and Baseline, regarding the preparation of the Reservoir Operations Plan.		
32000	79	14	The analysis presented in the SDEIS is based on modeled project operations generated by the California Department of Water Resources CalSim-II model, which is modified to include the proposed Sites Reservoir and conveyance facilities operating under specified diversion criteria (p. 2-31). The EPA is concerned that the modeling approach presented in the SDEIS does not represent the best available information on project operations. CalSim-II only evaluates historical hydrology through 2003 and does not include the more recent	Please see response to comment 79-3 regarding the environmental baseline and the adjustments made in the CALSIM II modeling between the RDEIR/SDEIS and the Final EIR/EIS. The operational criteria identified in Chapter 2, Project Description and Alternatives, have been refined since the RDEIR/SDEIS. Please see Master Response 2, Alternatives Description and Baseline, regarding refinements to project operations, and Master Response 3, Hydrology and Hydrologic Modeling, regarding information regarding CALSIM II and	Reviewed by Client	None

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			severe 2012-2016 drought. CalSim-II was replaced by CalSim 3.0 in 2017, which includes historical data through 2015, improved supply and demand estimation, finer spatial resolution, and a daily rainfall-runoff model. These factors suggest that CalSim 3.0 may be more a more appropriate operations model, and better suited to assessing potential effects of climate change on the proposed Sites Reservoir. Additionally, the EPA has concerns that the operating criteria identified on p. 2-31 used to model diversions to Sites are based on state and federal requirements that are currently being revisited.	modeling modifications. When the Notice of Intent was published for the Draft EIR (2001) and Notice of Preparation was published for the RDEIR/SDEIS (2017), CALSIM II was the only systems operation model that was jointly supported by DWR and Reclamation. As such, at the time of analysis, CALSIM II was the best tool available to evaluate Sites operations in the CVP and SWP systems.		
32000	79	15	Recommendations: In the FEIS, fully describe the finalized operations of the proposed project and ensure that any operations not contemplated in the diversion criteria or CalSim-II results are reflected in the water supply, surface water quality, and aquatic biological resources chapters. Consider using CalSim 3.0 (or most current version) to evaluate	Please see response to comment 79-14 regarding the use of CALSIM II and the refinements to operation criteria since the RDEIR/SDEIS. Please see Master Response 3, Hydrology and Hydrologic Modeling, which describes the modifications to modeling for the Final EIR/EIS, including baseline, Shasta Lake Operations, changes in	Reviewed by Client	None

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			whether modeled operations are affected by a longer temporal scope and other improvements over CalSim-II. Conduct a sensitivity analysis to evaluate the sensitivity of operations model results to reasonably foreseeable climate change impacts such as reduced and altered timing of runoff and increased crop and vegetation evapotranspiration.	diversion criteria, periods of releases, and other factors.		
32000	79	16	Consider modifying one alternative to include more stringent diversion criteria to meet Delta outflow objectives and protect Delta beneficial uses. In the 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan [Footnote 1: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/sed/sac_delta_framework_070618%20.pdf], the State Water Resources Control Board states that existing requirements are insufficient to protect the Bay-Delta ecosystem and proposes new inflow-based Delta outflow objectives of 55% of	Please see Master Response 9, Alternatives Development, regarding the reasonable range of feasible alternatives. Many commenters suggested modifications to reservoir operations should be made regarding decreases in diversions and/or increases in bypass flows compared to those evaluated in the RDEIR/SDEIS. The Authority and Reclamation worked with wildlife agencies to develop more restrictive criteria; the result of which has been analyzed in the Final EIR/EIS. Please see Master Response 3, Hydrology and Hydrologic Modeling, for a discussion of modifications to modeling based	Reviewed by Client	None

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			unimpaired flow withing an adaptive range of 45-65%.	on changes to diversions and other operations.		
32000	79	17	Consider modifying the Bend Bridge Pulse Protection diversion criterion (p. 2-31) to initiate pulse protection proactively using leading indicators, such as river stage forecasts from the National Oceanic and Atmospheric Administration's California-Nevada River Forecast Center, rather than lagging indicators such as visual observation of fish migration.	Please see Master Response 2, Alternatives Description and Baseline, regarding refinements to operations, including the Bend Bridge pulse protection diversion. Refinements have been made to the Bend Bridge pulse protection criteria. They are no longer based on a 3-day trailing average of flows at Bend Bridge. Instead, they will be based on a predicted storm-related flow event from the National Oceanic and Atmospheric Administration's (NOAA) California Nevada River Forecast Center. The Authority will use all available information and data sources to inform operations.	Reviewed by Client	None
32000	79	25	Sediment Management As discussed in Chapter 6 (Surface Water Quality), a large proportion of total concentrations of metals and pesticides in Sacramento River water under high discharge conditions are associated with sediments.	No regular sediment removal would be required for Sites Reservoir, Funks Reservoir, TRR East, or TRR West due to large reservoir volumes and distance from Sacramento River intakes. GCID and TCCA perform regular maintenance on their canals, which could include sediment	Reviewed by Client	N/A

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			Construction of the reservoir, access roads, and recreational facilities is also likely to result in erosion and mobilization of sediments in runoff. Sediments from the Sites watershed and Sacramento River would likely accumulate in Sites Reservoir and conveyance facilities, requiring active management and removal of sediment deposits. Conversely, waterbodies such as the Colusa Basin Drain (CBD) used to convey Sites deliveries, would experience higher flows that may increase mobilization of contaminated sediments into sensitive waterbodies like the Yolo Bypass and lower Sacramento River. Movement and resuspension of contaminated sediments can result in longer term ecological impacts via several mechanisms: sediment bioaccumulation into the food web such as for methylmercury and some pesticides, and acute and chronic toxicity resulting from discrete flushes (e.g., fall flush of the CBD through the Yolo Bypass containing higher concentrations of heavy metals and pesticides would directly impact	removal. The Authority will coordinate with GCID and TCCA on canal operations, which would include agreements on canal use. Discharges from Sites Reservoir are unlikely to affect quality of sediment in CBD. As described in Chapter 6, Surface Water Quality, CBD already contains elevated concentrations of metals and pesticides, which are generally expected to be higher than concentrations released from Sites Reservoir. Furthermore, releases from Sites Reservoir are unlikely to contain substantial amounts of suspended sediment because releases would occur after sediment from the Sacramento River source water has had time to settle. Increases in CBD flow associated with Sites Reservoir releases are unlikely to cause substantial mobilization of CBD sediment. Sites Reservoir releases would occur only when flow in CBD is low, to accommodate additional water without flooding any fields. The Chapter 5, Surface Water Resources,		

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			sensitive fish and other aquatic species). The SDEIS proposes best management practices in Appendix 2D (Best Management Practices, Management Plans, and Technical Studies) to ameliorate potential impacts from the project on water and sediment quality. Appendix 2D.3.3 (Metals) also discusses measurement of water quality metal concentrations; it does not specifically call for testing of metal concentrations in sediment or sediment elutriates. Appendix 2D.5 (Sediment Monitoring Plan and Adaptive Management for Sediment Diverted from the Sacramento River), discusses the sediment monitoring program but does not include background screening for potential contaminants of concern (PCOCs) and toxicity. The Delta Long Term Management Strategy [Footnote 3: Delta LTMS is an official Regional Dredging Team established to implement the National Dredging Policy: http://water.epa.gov/type/oceb/ocean	CBD Hydraulic Modeling section describes that during August and September the CBD carries high flows resulting from rice field agricultural drainage and often does not have capacity to convey reservoir releases of 1,000 cubic feet per second (cfs), which indicates that the Sites Reservoir discharge would not cause flows to go above those that already occur during the irrigation runoff season. Furthermore, the CBD hydraulic modeling described in Chapter 5 indicates that, when Sites Reservoir water would be released, the Knights Landing Outfall gate structure would cause a backwater with a flat water surface elevation up to CBD mile 25, which would tend to cause settling of suspended sediment. As described in Chapter 5, the highest CBD flows, which are the ones likely to move the most sediment, occur during winter runoff events, when no releases would be made from Sites Reservoir. During these high runoff events, CBD water is routed through		

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			dumping/dredgedmaterial/aboutactionagenda.cfm] (LTMS) includes a goal of maximizing beneficial reuse of dredged material in the Delta. Appendix 2D includes dredged material testing and disposal commitments. BMP-11 (Management of Dredged Material) states "Prior to dredging, a chemical evaluation of Funks Reservoir water and sediment will be conducted to determine contaminant concentrations. This will help evaluate the suitability of dredged material for beneficial use and determine compliance with water quality standards."	the Knights Landing Ridge Cut and into the Yolo Bypass. Contaminants adhered to suspended sediment diverted from the Sacramento River for Sites Reservoir storage are not expected to differ greatly from contaminants adhered to sediment present in the Sacramento River. Contaminants in bed sediment can affect surface water quality, but often contaminants remain bound to sediment, and water adjacent to buried sediment has limited capacity to mix with surface water. As such, the evaluation in Chapter 6 and the reservoir management plan (which includes monitoring upstream and downstream of the reservoir) focus on evaluation of surface water quality, including metals bound to suspended sediment, as an indicator of potential biological effects. The final reservoir management plan would be prepared after meetings and consultation with regulatory agencies and other stakeholders. Also note that sediment excavated from Funks Reservoir as described in Chapter 2, Project		

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				Description and Alternatives, suitable for beneficial use would only be used for Project purposes and would not be used in the Delta.		
32000	79	26	Recommendation: In the FEIS, include additional design BMPs that hydrologically disconnect, on a permanent basis, the associated existing and proposed new roads from the immediate reservoir watershed to prevent sediment erosion runoff into the reservoir.	Appendix 2D, Best Management Practices, Management Plans, and Technical Studies, includes BMP-15, Performance of Site-Specific Drainage Evaluations, Design, and Implementation, which provides numerous measures for control of erosion effects, including erosion effects related to roadways. In addition, implementation of the following BMPs would also reduce potential adverse effects on water quality resulting from erosion runoff into the reservoir: BMP-12, Development and Implementation of Stormwater Pollution Prevention Plan(s) (SWPPP) and Obtainment of Coverage under Stormwater Construction General Permit (Stormwater and Non-stormwater) (Water Quality Order No. 2022-0057-DWQ and NPDES No.	Reviewed by Client	N/A

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				CAS000002 and any amendments thereto) BMP-14, Obtainment of Permit Coverage and Compliance with Requirements of Central Valley Regional Water Quality Control Board Order R5-2022-0006 (NPDES No. CAG995002 for Limited Threat Discharges to Surface Water) and State Water Resource Control Board Order 2003-0003-003-DWQ (Statewide General Waste Discharge Requirements For Discharges To Land With A Low Threat To Water Quality) (BMP-14 would require compliance with the existing permits and any amendments thereto).		
32000	79	27	Recommendation: To inform the development of a sediment monitoring plan, include an initial screening of metal concentrations in sediments as part of the project's assessment of the presence and movement of metals. Sediment monitoring in the Sacramento River at the Red Bluff	Please see response to comment 79-25 regarding sediment management, sediment discharges from Sites Reservoir, sediment in CBD, focus on surface water quality monitoring, and the reservoir management plan.	Reviewed by Client	N/A

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			Pumping Plant and Hamilton City Pump Station intakes should include a minimum level of sediment quality characterization for conventional contaminants, known PCOCs (especially bioaccumulative compounds), and baseline suspended sediment and solid-phase bioassays. Consider additional sediment monitoring locations at critical waterbody junctions along the project route to establish background levels, such as where Stony Corral Creek outflows and at the furthest downstream point of the CBD before entering the Yolo Bypass.			
32000	79	28	Recommendation: In the FEIS, set specific dredged material beneficial reuse goals consistent with the LTMS, and commit to placing material in accessible sites to promote beneficial reuse of material. Commit to testing sediment quality according to standardized and acceptable protocols, i.e., the Inland Testing Manual,[Footnote 4: https://dots.el.erdc.dren.mil/guidance.	Please see response to comment 79-7 regarding BMP-11, Management of Dredged Material, and sediment testing and beneficial reuse. It is estimated that at least 80% of dredged material from Funks Reservoir would be suitable for reuse on the Project after dewatering. Beneficial uses of this material may include pipeline backfill, Zone 4 random fill (the stockpiles would be close to Golden Gate Dam), Sites	Reviewed by Client	None

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			html] and evaluated against relevant sediment criteria, such as those used by the SF Bay Dredged Material Management Office for upland beneficial reuse sites. Discuss how placement of dredged material on peat soils would affect subsidence and levee stability. Proactively identify potential sites for dredged material acceptance, including already established sites such as Antioch Dunes, Montezuma Wetland Restoration Project, Cullinan Ranch Restoration Project, and Sherman Island (owned by DWR).	Lodoga Road embankment fill, quarry restoration, or other general fill. There is no plan for use of dredged material on peat soils, near levees, for levee construction, or at any location in the Delta.		
32000	79	43	Recommendation: Revise the Reservoir Management Plan to improve HAB monitoring. We recommend monitoring occur more frequently than monthly near the start of the bloom season to identify blooms, implement management measures as quickly as possible and extend monitoring until the bloom ends, usually occurring upon reservoir	The following recommended revisions have been made in Appendix 2D, Best Management Practices, Management Plans, and Technical Studies of the Final EIR/EIS: Cell density OR cyanotoxin concentrations as trigger levels (not "and" as is proposed). Text referring to planktonic HABs posting guidance in the table titled California Cyanobacteria and Harmful	Reviewed by Client	N/A

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			turnover in late fall/early winter (not October as speculated on p. 2D-31). Base the assessment of the presence of cyanobacteria on: • cell density OR cyanotoxin concentrations as trigger levels (not "and" as is proposed). • both planktonic (water column) and benthic HABs; • other indicators of benthic HABs, beyond confirmation by microscopy, such as the observation of benthic HABs or detached mats, or the detection of cyanotoxins characteristic of benthic HABs (e.g., anatoxin-a). • California Cyanobacteria and Harmful Algal Bloom Network Trigger Levels,[Footnote 12: California Guidance for Cyanobacteria HABs in Recreational Inland Waters, https://mywaterquality.ca.gov/habs/resources/habs_response.html] as amended, or updated. The California Water Quality Monitoring Council	Algal Bloom Network Trigger Levels for Posting Planktonic Advisory Signs has been revised to indicate that amendments or updates to those trigger levels would be used to determine if/when planktonic advisory signs at Sites Reservoir are necessary based on reservoir water quality. The Reservoir Management Plan (RMP) includes monitoring for benthic HABs and coordination with the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board for posting benthic HABs signage. As noted in Appendix 2D of the Final EIR/EIS, the RMP is, and will continue to be, revised throughout the operation of the reservoir. Revisions to the RMP will account for changes to operations, site-specific conditions, adaptive management actions and decisions, and future changes to regulations or methodologies for evaluating water quality constituents. Refinement of the RMP may occur during consultation with agencies.		

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			periodically updates the guidelines and trigger levels to reflect evolving understanding of HABs.			